



# AMERICAN RAILROAD JOURNAL, AND ADVOCATE OF INTERNAL IMPROVEMENTS.

PUBLISHED WEEKLY, AT No. 35 WALL STREET, NEW-YORK, AT THREE DOLLARS PER ANNUM, PAYABLE IN ADVANCE.

D. K. MINOR, EDITOR.]

SATURDAY, MARCH 7, 1835.

[VOLUME IV.—No. 9.]

## CONTENTS :

Editorial Notices; Query; Trade of the Great West.....	page 129
New-York, vs. Philadelphia, Baltimore, and Richmond, Va., in Works of Internal Improvements	132
Map.....	133
Erie Railroad.....	135
Black River Canal; Improvements in the Construction and Application of Pumps and Machinery for raising Fluids and other Purposes....	138
Revenue of New-York; Anchor Ice.....	139
Agriculture, &c.....	140
Advertisements, &c.....	144

## AMERICAN RAILROAD JOURNAL.

NEW-YORK, MARCH 7, 1835.

We have this week devoted more than our usual space to local, or our own State works. We shall give early attention to several reports relative to other works, now on our table.

We ask attention to the article in this number from the Oswego Palladium, relative to a ship canal, and the communication with the Canadas—it will be found of interest.

Also to the article from "Cincinnatus," on page 138, relative to the Black River Canal, State appropriations, &c.

The Editor of the Railroad Journal presents his compliments to the merchants of New-York, and requests them to furnish him with a statement of the amount of merchandize, or the number of boxes, sold to merchants and others residing southwest, and beyond Pittsburgh and Lake Erie—which have found their way through other States, but would probably have passed through our own State, if a convenient and expeditious mode of conveyance was in operation. The object of the above request is to show the importance of an additional and more expeditious mode of conveyance through the State of New-York—and the high interest our merchants have in an early construction of the Erie Railroad, and of its ultimate connexion with the railroad from Nashville to New-Orleans.

We ask attention to the subject of our Western trade, and the importance of the adoption of such measures as will insure the early construction of the New-York and Erie Railroad—and also desire our readers to look at the four great routes from the Atlantic towards Nashville—with a view of determining which ought to be adopted and constructed, to facilitate the intercourse between the Atlantic States and New-Orleans, and the southwest.

We shall endeavor to give in our next number an account of the amount of merchandize sold in this city during the winter months, and requiring a means of conveyance beyond Pittsburgh and Lake Erie, which now finds way to its place of destination either through Pennsylvania, Maryland, or New-Orleans, to the interior of the Western States—and which would, if there was a railroad, pass through our own State, between the closing and opening of our canals.

We ask particular attention to the able and very important speech of Alderman STILLWELL, of the Common Council of New-York, upon the importance of increasing the channels of communication with the West.

We highly approve of the suggestion to establish an "Internal Improvement Department," and hope such a measure may find friends in all parts of the State.

HUDSON AND ONTARIO SHIP CANAL.—We have received, through the politeness of J. E. Bloomfield, Esq., a copy of the report of Mr. E. F. Johnson, who recently surveyed that part of the route between Utica and Oswego. It came too late for this week, but we hope to give some further account of it, and several others which have been received.

QUERY.—What elevation, per mile, may be considered, with locomotive power, equivalent to an additional mile on a level road?

Will some of our railroad friends, who have more leisure than we, please answer the above query?

TRADE OF THE GREAT WEST.—This is a subject in which every citizen of New-York, as well of the State, as the city, has a direct interest. Every owner of the soil, and every practical business man, as well as every day laborer, is, in one way or another, directly benefitted by the transit of produce and merchandise through our territory; and it is therefore the duty of every man to use his best exertions to secure, by all honorable means, the trade of the great West—and we should naturally suppose that every honorable and liberal minded citizen of the State would exert himself to extend, and perfect, such works of internal improvement, as will most effectually secure to our State a transit duty upon the products of the West; and merchandize in return; and to our cities the immense business resulting from such an exchange.

There are few persons, that have not watched closely for fifteen years past, or examined documents with much care, who can appreciate the value of our present works of internal improvement, or estimate with accuracy the rapid increase of business upon those works.

Within our recollection the entire business between the east and west was carried on by teams. The surplus produce was brought down, and the necessities and luxuries of life were taken into the interior, and the far West, by the aid of waggons and sleighs. How, we would ask, could the business of the present day, be conducted by teams? Where would teams be found, and when found, how accommodated on the road? Assuming the tonnage of the Erie canal, for 1834, to be equal to 700,000 tons, it would require 12,963 teams, of six horses each, constantly on the road, to perform the business;—supposing the entire trade to pass from Albany to Buffalo, and each team to take 3 tons at a load, to perform the trip out and in, 600 miles, in 40 days, including Sundays and delays for loading, on an average of 12 miles per day,



for 365 days in the year; and were they to be in one continued column, they would extend, allowing each team 100 feet space, more than 245 miles, and keep in constant use 77,778 horses, besides at least 10,000 supernumeraries to supply losses, &c. This shows the subject in a light more easily comprehended. If we look for a moment at this statement, and estimate the cost of transportation, which could not be put at less than \$2.00 per cwt., or \$40 per ton, for 300 miles, which would amount to *twenty-eight millions* of dollars a year, simply for transporting, we shall appreciate more correctly the value of the present canals, which have been accomplished by the enlightened foresight and liberal policy of our statesmen.

If such, then, are the results of enlightened legislation, and liberal policy—and no one, we apprehend, will deny the fact—or that those residing near the route of these works have been much benefited by them—private property having increased in value *three times* at least the cost of the canals, more than it would have done had the canals never been built—why not continue to pursue that policy? It is now satisfactorily ascertained that the income of the Erie Canal will liquidate its debt in a few years, even if the other sources of revenue, pledged to it, were diverted to new works—then why not pursue a course of policy which, under the administration of CLINTON, placed New-York at the head of the Union? Why do we see gentlemen residing within the influence of other improvements, constructed entirely by the State, and who have been so much benefited by them, as well in a political as a pecuniary point of view, opposed to all new improvements which do not pass their doors? Such a course indicates a contracted and selfish mind—a mind which should never be possessed by men who aspire to be legislators and statesmen. Have we not arrived at our present state of prosperity by our works of internal improvement? Do we not owe to our canal system in a great measure the present highly prosperous condition as a State? If so—and we presume no man will deny it—why not, in a spirit of honorable reciprocity, say to those sections of the state which have not heretofore participated directly in these improvements, we will aid in placing you on equal terms with ourselves, and we will then strive together to improve every avenue of which the country is susceptible, that we may secure the prize for which our neighboring States are now striving. It would seem that, with half an eye, any one might see and appreciate the importance of securing the western trade.

By the annexed map, the prominent routes, or lines of communication with the west and south-west will be seen. New-York, Pennsylvania, Maryland, and Virginia, are competitors. It is often remarked, that "the race is not to the swift." In

this case, however, it will be found that the prize will fall to those who first enter, and leave the field last. The battle is to be fought by us, with steamboats on canals, and locomotive power on railroads, against stationary power on railroads, with numerous inclined planes.

Those States have the advantage of us both in climate and distance, but New-York can reach the Ohio river with less than one-third the elevation which they must surmount. This will, probably, place us on very nearly equal ground; and success depends almost entirely upon who first obtains the trade.

By way of illustration, and to show how wholly inadequate are our means for transportation, to meet the views and wishes of western merchants, it may be in point to say, that, during the month of February and the first five days of March, inst., more than 350 boxes of dry goods have been put up by one house alone, in this city, amounting in value to more than \$100,000, for merchants in Ohio, Kentucky, Tennessee, and the adjoining States, by the way of Philadelphia and Pittsburgh; and they will undoubtedly reach their place of destination long before our Canals are navigable.

If one house, and that one not in Pearl st., has sent this amount of goods to Western merchants during the last 33 days of extreme cold weather, who will pretend to estimate the amount sent from this city during the same period? or the amount purchased in Philadelphia, which would have been purchased in New-York, if we could also have furnished an easy and cheap mode of transportation direct to Lake Erie, and through Ohio, by Railroad. No one, except intelligent merchants here, and in Philadelphia, would credit the statement. It would appear altogether incredible.

We are informed that merchants come here, but on finding that they can purchase many articles as cheap in Philadelphia, return and purchase there, to avoid the expense and risk of transportation.

We do not envy our neighbors for possessing the facilities which draw from us this trade, nor for improving them; far from it. We give them all praise for their enterprise, and wish them all possible success, which can arise from honorable competition. Yet we cannot, we frankly admit, pass the door of the enterprising house referred to, and see their numerous boxes marked "Ohio," "Ky.," and "Tenn.," without regretting that that noble enthusiasm—that spirit of liberal and prophetic foresight which guided the councils of our State in '16, '17 and '18, and onward, until the completion of our main canals—should be entirely extinct; nor without a more fixed resolve and determination to do all that is possible, with our means, to arouse once more those whose voice and wishes no one will pretend or dare to dispute—the people—to a just appreciation of the advantages they possess,

as well as of the prize for which we contend, and the competitors with whom we have to contend.

By a reference to the map it will be seen that railroads are made, making, or in contemplation, from New-York; Philadelphia, Baltimore, and Richmond, Va.—all tending to one point, namely, New-Orleans; and it is a matter of no small moment to either city, that it should have the termination, or at least the *Atlantic* termination of this great mail route and thoroughfare. One or more of these routes will probably connect, at Nashville, with the Nashville and New-Orleans Railroad, which is now under survey, and will, beyond all question, as we are informed by the engineer, be constructed with all possible despatch; and it therefore becomes a matter of vast consequence to the people of this State, that the Legislature of this State should act *wisely, liberally, and promptly*, in the measure now before them—that the New-York and Erie Railroad may become the *eastern* termination of the line. The intermediate parts, in the different states, will be constructed, without difficulty, when it is known where the termination is to be.

That we may better understand the matter, let us suppose that the road from New-Orleans to Nashville, Tennessee, was completed, and also that the Virginia railroad, from Richmond to the mouth of the Kenawha, or to Abingdon, Va., the Baltimore and Ohio Railroad to Wheeling, the Philadelphia Railroad to Pittsburg, and the New-York and Erie Railroad to Lake Erie, were all completed; leaving a distance between Nashville and the different terminations something like the following, namely, to Abingdon, Va., about 250 to 300; to the mouth of the Great Kenawha, 400 to 450; to Wheeling, of 500 to 550; to Pittsburg, of about 600; and to the New-York and Erie, of 650 to 700 miles, to complete the chain to New-Orleans. The question naturally arises, which of these routes would be most like to become the great thoroughfare for travel, trade, and the mail?—From Richmond the Abingdon route, probably; but when all interests are considered, another route would most likely be selected. In coming to a just conclusion, it is necessary to understand the character of the country through which the different roads must pass; and when the necessary information shall be obtained, the longest and the shortest will most probably be found the most feasible; but, on the Virginia route, should it be completed, the traveller, on his arrival at Richmond, will then be near 400 miles from the great mart, as we of New-York consider our city. The northern route will, therefore, probably be considered the most eligible on account of the comparatively level country through which it will pass, from its termination at lake Erie, by the way of Cleveland, Sandusky, the Mad river Railroad, to Dayton, and thence



through a corner of Indiana to Louisville, Ky., and thence to Nashville. Now, we ask, is not this a measure of great promise to our State, and especially to our city. It is a measure which will secure to the State of New-York a transit duty on the removal, as well as her citizens a profit on the sale, of her goods. It will also secure to New-York the main travel and mail to New-Orleans, which is of great interest to her; although it has become the fashion of the day to receive mails from New-Orleans at very long intervals—which proves a serious obstruction to business.

The following very appropriate remarks, and extract from a "Report on the Welland canal," are from the Oswego Palladium of 11th February. The remark that "the New-York canals have as yet felt *absolutely nothing* of the Western trade," is true, almost to the letter; as more than nine-tenths of all the business is from our own State, and yet the canal is not capable, at the busy season, to accommodate the business without great delays and hindrance to business men. Yet with this important fact in full view, "the State should not mingle its funds with a private company, nor have any thing to do with a railroad." So says the gentleman who is accommodated to a T, by canals, living as he does where the Oswego canal connects with the Erie canal.

*Trade of the West.*—By reference to the Report on the Welland Canal, it will be perceived it is the opinion of the Directors, that on the completion of the ship navigation from Lake Ontario to the Ocean, merchandize from London may be conveyed to Cleveland, Ohio, for ten dollars a ton. That the present cost of transportation from Montreal to Prescott, on the St. Lawrence, a distance of only 130 miles, is from twelve to sixteen dollars a ton.

We suppose the above estimate of the future price of transportation between London and Cleveland, to be not very far from the truth. But suppose it is utterly extravagant, will it not awaken those whose duty it is to guard the interests of the city of New-York, to inquire at least into the possibility of her being almost totally deprived of a participation in the great trade of the West—a trade, the future magnitude of which is so vast that we scarcely yet perceive the falling of the great drops which denote the overcharge of this cloud. The New-York Canals have as yet felt *absolutely nothing* of the Western trade. Ninety-nine hundredths of the vast amount of property transported on the canals is as yet the produce of our own state, or the demands of its consumption. We ought not to shut our eyes to the fact that the great improvements in Pennsylvania, Maryland, and Virginia, will secure to those States the transportation to and from the middle and southern parts of the great North Western States. If New-York can secure the trade of the northern parts, she will gain enough to satisfy the most ambitious hopes of commercial empire. Let us not then sleep upon our posts while our northern rival is upon the march. It is only by a great navigation corresponding to the works of nature—a navigation which requires no transshipments from the ports of lading, to her own wharves,—that can secure to New-York an equal participation in a trade to which, in

a short period, such extraordinary inducements will be presented to descend the St. Lawrence. Was the British Government ever known to sleep when the interests of British commerce required vigilance? An act of Parliament, or perhaps an order in Council, making a difference of 25 or 50 cents a barrel in favor of flour arriving in Liverpool, or any other British port, from the St. Lawrence, over that arriving from ports of the United States, would at once deprive New-York of almost the whole of the great staple of the West—a mere immunity granted to flour from the St. Lawrence, (such as would violate none of the reciprocities now existing between the two countries,) would accomplish the object. Nay, might not a part of the great internal trade of our own State be withdrawn from her, and the mills of Rochester and Oswego be made directly tributary to British commerce, without the intervention of the Port of New-York. What measure of advantage, then, will the British have over us, when, added to the political accidents alluded to, she will possess a navigation in which the works of art are made to correspond with the grand operations of nature? The period is not distant when a British ship of 300 tons can appear in the harbors of the Genesee and of the Oswego. With this prospect a-head, our citizens are discussing the propriety of making our canals two feet deeper, and some ten or twenty feet wider; and this, too, while it is in the power of the State to construct a navigation by which steamboats may be passed from the lakes to the Hudson, at a much less cost than the proposed enlargement of the canals. Let the canals be enlarged if necessary. It is pretty clear they are hardly now equal to the business of our own State; but the great navigation from the Hudson to the lakes must be made at last, or the Western trade is lost to New York.

We recommend the following passages of the Report to the particular attention of those interested in the navigation of the Lakes:—

"Contracts are entered into for extending the lock at Port Colborne to 125 feet in length—widening the canal from thence to the rock six feet—and cutting a basin for vessels to pass or turn, on the north side of the lock, at the harbor—for deepening the rock excavation at the curve, on the new route, twelve inches—widening the canal from the junction to Port Robinson—making a guard-gate at Port Colborne, and one at the junction—a culvert at Hall Davis's level—and deepening the canal from one foot to eighteen inches, from Campbell's lock to Davis's basin, and the cut from Marlatt's level to lock No. 35 in Thorold—and for extending the west pier at Port Dalhousie in a line with the east.

"Also for deepening and widening the feeder from the junction to the curve, and cutting basins every half mile for the passage of steamboats—making a culvert at Broad Creek, and extending the Berm bank from thence to Cranberry Creek—all of which are now in a rapid state of progress.

"To effect these objects, great sacrifices were indispensable. The canal had to be closed as early as the 15th November, of which due notice was given; and consequently the loss of the greater part of the fall business has been unavoidable.

"It was gratifying to the Directors to witness the readiness with which those interested in the trade entered into their views, and relinquished the remaining bu-

siness of the present year, to insure an early transit the ensuing season.

"The public are generally aware, that one of the most prominent features in this canal is the opening of the navigation before the lower part of Lake Erie is clear of ice; an advantage which, up to the present moment, for want of means, has never been realized, though the nature of the work decidedly admits of it.

"The Directors have named the first day of April of the ensuing season for opening the canal—and they are resolved that the improvements now in operation shall not interfere with that determination. To encourage emulation for an early transit, the Board have offered a premium of one hundred dollars to the captain of the first vessel, over fifty tons burthen, which may arrive at Port Dalhousie, laden with merchandize from New-York, destined for any port on the upper Lakes—and one hundred dollars to the captain of the first vessel, over fifty tons burthen, which may arrive at Dunnville, on Grand River, with produce from Cleveland, or any port above it, destined for New-York market; as they believe an interchange of commodities may take place between New-York and ports on the upper Lakes, by this channel, in ordinary seasons, one month earlier than by way of Buffalo. They will also give the same premiums to the first vessel, over fifty tons burthen, which may arrive at Port Dalhousie, from either Prescott, Brockville, or Kingston, laden with merchandize from Montreal market, destined for the British ports on Lake Erie; or at Dunnville, from Port Stanley or above it.

"The uninterrupted navigation of the canal, throughout several months of the past season, has afforded the utmost confidence to all those interested in it; and owners and masters of vessels are now fully satisfied, that both a profitable and certain business may be transacted through it. In proof of this, the Directors are advised of *twenty new vessels of the largest class being in course of building, on the American side, purposely for this trade.*

"There is also a degree of activity prevailing in the ports on our own side, not heretofore witnessed. Vessels are building, suited to the double voyage, which cannot fail to give an impulse to the western parts of this province, where it has been much required."

The whole expenditures on account of the canal somewhat exceeds \$1,600,000. There has passed through it, during the late season, 570 schooners, 334 boats and scows, and 66 rafts, amounting to about 38,000 tons.

The amount of toll in 1832 was £2,432

" 1833 3,618

" 1834 4,300

¶ The Report states that although the income of the canal during the late season does not present the same ratio of increase as the former, the difference is chiefly to be ascribed to the early close of the navigation, [made requisite on account of repairs,] and the decrease of business in the months of June and July, owing to the total interruption of the navigation of the Ohio Canal. Notwithstanding, there has been a great increase in the transportation through the canal of the principal staple articles which are particularly detailed.

The remainder of the report, being of ex-



trepreneurial interest to all New-York readers, we give verbatim.

"By a report of Mr. Mercer, Chairman of the committee on railroads and canals, published the 24th of June last, the construction of a ship canal between Lake Michigan and the Mississippi, by the Illinois river, is strongly recommended to the consideration of Congress. As this is a project in which the whole continent of America must feel a mutual interest, we copy the report of C. Gratiot, Esq. chief engineer.

"It may not be generally known that it requires a canal of only 37 miles to connect the ocean with Lake Ontario, 28 miles to connect Lake Ontario to Lake Erie, and 92 miles to connect Lake Michigan with Illinois river, (the summit of which is but 27 miles,) requiring only artificial ship or steam navigation of only 147 miles to connect the gulphs of Mexico and St. Lawrence, through the interior of this continent. We also insert an extract from the report of B. Wright, Esq. on the St. Lawrence, which cannot fail to impress on the minds of those concerned the decided advantages which must arise to the public by constructing a canal at this point on the enlarged dimensions.

"Although the inhabitants of these Provinces have witnessed the entire loss of the Western Trade, with a degree of supineness not to be satisfactorily accounted for, it is cheering to know that the Legislature of this Province has commenced the improvement of the St. Lawrence on a scale commensurate to the object. The locks are 200 x 55 feet, with nine feet depth of water. It is to be hoped measures will be adopted, the ensuing session, to continue this scale through the Lower Province; which will in effect make those interior waters a sea coast, and extend the commerce of the St. Lawrence beyond the most sanguine expectations of those who may now be considered enthusiasts.

"The difficulties and expense of navigating the St. Lawrence are far greater than is generally supposed. The amount of trade or commerce through that channel is a mere bagatelle, compared with what is directed to the New-York market. It appears that 264,919 bushels of wheat were conveyed through the Welland canal last season; of which only 18,464 bushels came from our ports on Lake Erie, and 22,170 from American ports destined for Montreal market; and the remaining 224,285 were conveyed to Oswego; whereas, if the St. Lawrence was made navigable, it would be difficult prescribing bounds to the quantity which will be diverted by this channel to foreign markets, or the quantity of merchandize in return for the supply of the Western country. It is supposed that merchandize from London would be conveyed to Cleveland for 2l. 10s. per ton, which now costs 3l. to 4l. from Montreal to Prescott, a distance of 130 miles."

NEW-YORK, vs. PHILADELPHIA, BALTIMORE, AND RICHMOND, VA.—NOT IN LAW, BUT IN WORKS OF INTERNAL IMPROVEMENT.

—The period has arrived when a statement of facts is necessary to show the importance of an early and decided movement on the part of the State of New-York, if she would retain what she has, and obtain more, of the trade of the far and fertile west.

By a reference to the following outline of

a map, it will be perceived that there are four great lines of communication, all tending to the same point.

Virginia will now push her *James River and Kenawha Improvement*. If this work should, as it certainly will not, terminate at the Ohio river, it will then only require about 400 miles of road to connect at Nashville with the road chartered, and now under survey, from New-Orleans to Nashville. Will Virginia now permit her favorite work to sleep? She will not surely be so unwise, nor will she be satisfied until she connects, either through Kentucky, or by the way of Abingdon, Va., and down the Holston to Knoxville, and thence to Nashville—most likely the latter—that she may secure to herself a share of the trade of those States, and also endeavor to make that the main travelled mail route from New-Orleans to New-York. Maryland and the District of Columbia, also, are training for the same prize; and well they may, for even a *share* of the products of the millions of fertile acres and rich mines west of the Alleghanies, is worthy of all the efforts that are being made for it. The Chesapeake and Ohio Canal, notwithstanding the obstructions thus far encountered, will eventually tap the Ohio; and the Baltimore and Ohio Railroad has been completed too far to be permitted to terminate east of the Ohio River, or some other point equally favorable, to secure her a share of the western trade. It would be unwise to flatter ourselves that these works will not ultimately reach the point of their early destination. The nature of things ensures it; the genius of our country demands it; and the wind or the waves may as well be stayed.

What Maryland and Virginia have resolved, PENNSYLVANIA has accomplished. She was slow to engage; but, once aroused, she drank deep of the spirit of enthusiasm on the subject of internal improvements, which once, more than in any other, pervaded this State; and hesitated not to pledge her credit, to almost an unlimited amount, for the benefit and prosperity of her agricultural, mechanical, and commercial community. She has constructed canals and railroads in almost every direction from her capital; she has not only passed, but *penetrated* her mountains, and *reached* the Ohio; thereby opened a direct communication with the Mississippi. Not satisfied with that, however, she is now pushing her canals, in different places, to the line of our own State, as well as the State of Ohio. Her people do not insist upon concentrating *all* their works in *one* neighborhood; but with a liberality highly commendable to them, strive to spread wide, even to the very extremes of the State, their works of improvement. They do not say to those sections, hitherto excluded,—who now ask aid,—as our worthy friend of the Syracuse Standard says to the southern

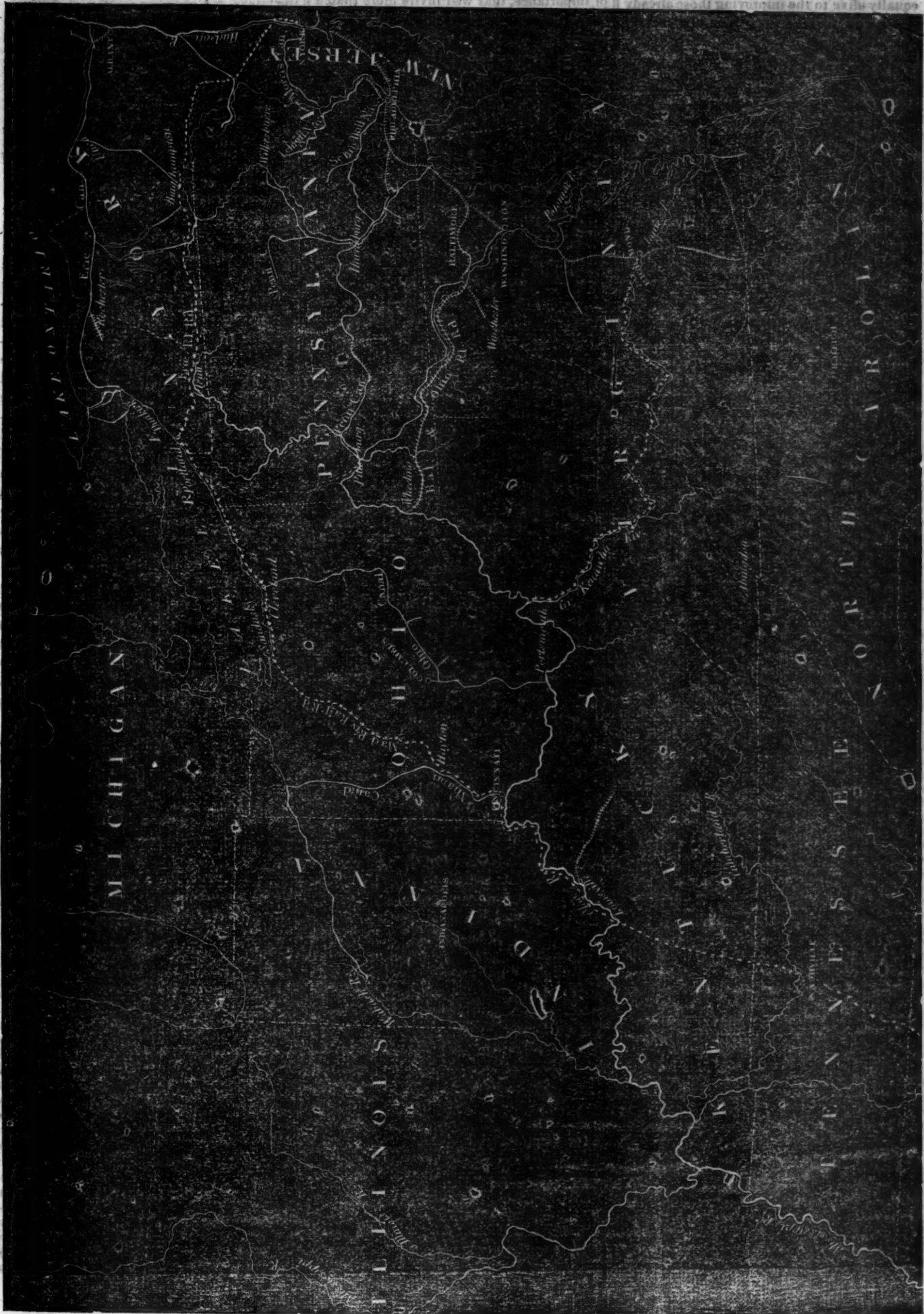
counties: "*If the work will pay the interest on its cost, you need no help; if it will not pay the interest, the people for whose benefit it is to be made, must defer their demands until it will.*" Indeed, Sir! is this the way you intend to reciprocate the favors which you have so long enjoyed? Is it indeed so, when, for more than *sixteen years*, the inhabitants of the southern counties have not even been permitted to *salt their porridge* without paying a *direct tax* to promote your interest; and, to our own certain and personal knowledge, have aided in elevating the place in which you live, since 1810, from three *houses*, and a *horse-shed*, surrounded by marshes, and pools of stagnant water, inhabited by frogs and reptiles, to be one of the most enterprising, prosperous, and respectable villages—we might almost say cities—in the State? As an evidence of the correctness of this statement, we refer to sales of State lands in 1822, in and about the village of Syracuse, that were made at \$7 to \$20 per acre, which could not now be purchased at \$1500 to \$5000 per acre; yet those directly interested in the construction of a railroad, which will not pass through that, almost city, are told by the editor of the Syracuse Standard, that he has "*on several occasions experienced no small degree of surprise at the apparent zeal and earnestness with which the New-York journals have urged, in particular, the proposed railroad through the southern counties.*"

—"Nor can he account for their manifestations of good will towards every visionary scheme which radiates from their city, except on a *principle of such loose morality* that he shall not desire to specify," &c.;—and then goes on to say:

"We have remarked, that whenever the enlargement of the Erie canal has been recommended, the measure met with but a cool response, or a silent negative, from the commercial emporium, but if the said railroad, or the aforesaid steam ship canal, was introduced into discussion, all Manhattan was alive to the importance of creating new communications through the State with the far west, to secure its trade and prevent Pennsylvania and Maryland from taking a share in the grand prize held out for Atlantic competition. We say this disposition wears a strange, and almost unaccountable aspect."

There must surely be more than meets the eye—that the City of New-York, dependent as she is upon the prosperity of the *whole interior*, should desire to have the works of internal improvement pervade *all parts* of the country, instead of running *side by side* through any particular part, and especially that which is by many times the most wealthy section of the State! It is, indeed, "unaccountable." It is not, however, a fact, that the "commercial emporium" receives with a "cool response, or silent negative," the proposition to "enlarge the Erie Canal"—altho' it is true, as the liberal minded editor admits, in another place, that its inhabitants "are alive to the importance of creating new communications through







the State with the far West;" and they are equally alive to the improving those already made, and to extending them into every part of the State.

"The expense of enlarging the capacity of the Erie canal would be from six to eight millions of dollars. For this sum it can be made to admit vessels of one hundred or more tons, which may navigate the Lake and the Hudson river—receiving and discharging their cargoes, at New-York, and at the ports on the Western Lakes. The consequence would be, that but half of the present number of boats would be required to run on the canal, whilst the capacity of the canal would receive four times as many—thus, when the new description of boats should be exclusively employed, being enabled to bear eight times the amount of tonnage transported upon it during the last season. This would be making provision for a distant period of time, and it might be safely left to future generations to prosecute new enterprises for the security of any greater portion of trade which should fall to our share from the west. The superiority of this mode of improving our navigation is too plain and palpable, to admit of question or dispute. It is the mode which nature has marked out, and art never succeeds but where she treads in her sister's footsteps."

Now we have always supposed that "art" and enterprise strayed most strangely, at times, from nature's path. It would at least appear that they were either designed to improve nature's work in many parts of the country, or they have been woefully misapplied by our enterprising neighbors of Pennsylvania and Maryland—where great inequalities of surface are overcome.

The friends of the New-York and Erie Railroad, it would seem, are not the *only* visionaries in such matters—as the following extract establishes:

"The project of a steam ship canal is almost too 'sublimely ridiculous' to demand serious attention, and it would certainly pass without attracting much notice, if we did not see a city engaged in surveying its route, and grave chambers of commerce employed in descanting upon its manifold advantages. It is but little less than a proposition to throw away the Erie canal, the proud monument of our public spirit and enterprise, and to hazard 25 millions in opening a new channel, whereupon to transport the same merchandise and produce which finds such an easy transit upon our present communications. Some reasons must be urged in favor of a change of such magnitude, and so we are told, with a becoming affectation of gravity, that the western trade will seek an outlet by the St. Lawrence river, unless we provide new facilities for its transmission to our own seaboard. Every one will perceive the peculiar force of this argument. Another is, that the Erie canal will not do the increased business which will naturally flow upon it. Hence the sage inference is drawn, that, although six or eight millions would place it in a condition to ensure the full purpose of its construction, twenty-five millions should be expended instead, to open a new route by its side, which, when completed, will do no more. But it is not necessary for us to pursue this subject further, for the scheme is not yet sufficiently matured or familiar to convey alarm to sober minded people, nor do we now ima-

gine that it can be ripened into that degree of importance, that will invite more than a casual notice to its impracticable and useless magnificence."

It may not be distinctly recollected by all of our readers, but we recollect as though it were but yesterday, the sage prophecies of the wise men of the same region, relative to the Erie Canal, in 1817 and 1818—they "desired *only* to live until Clinton's 'big ditch' should be completed"—the wiseacres of the present day may be as much disappointed.—We will not reply to the *insidious* insinuation, that it is the desire of any friend of other improvements to "throw away the Erie Canal, the proud monument of our public spirit and enterprise, and to hazard twenty-five millions to open a new channel whereupon to transport the same merchandize and produce." It is an unmanly charge, and could only have been dictated by an illiberal and contracted mind.

"At first glance," says the Editor, "the construction of a road through the southern counties is calculated to awaken the jealousy of northern interests. The friends of the canal, and the local interest identified with it, might apprehend a division of trade and travel to an injurious extent, and be roused to an opposition to the southern road on fallacious grounds, if not from a wrong principle. That the southern counties should, if possible, be brought into a participation of the advantages developed by public improvements, will not be denied, nor indeed has it been, for the state has liberally extended its branches from the Erie canal into that region at all the most feasible points, and would undoubtedly continue to do so, if its policy be not suddenly and violently changed. The state ought not, however, to be called on to mingle its funds with a private company—to loan its credit upon doubtful security—or to interest itself, in short, in a railroad at all."

Indeed! "ought not to be called on to mingle its funds with a private company." Very well; from which we should infer that the editor would recommend the State to build the road entirely, but for the next sentence, in which he puts his *veto* upon the granting of aid to these counties by the State, by saying, "the State ought not to loan its credit upon doubtful security"—very doubtful security, that where the company pledges four millions to secure *two*—"or to interest itself in a Railroad at all." How, we would ask, were the "Erie and Champlain" canals built? Was it without the aid of the State, because it would pay an *interest* upon its capital? Or was it by pledging the credit of the State, and by taxing the salt with which the day laborer seasoned his scanty meal? and for the benefit, too, mainly, of those who now, because they have grown rich, and hope to grow richer, by the improvements caused by the canal, are exceedingly cautious how they consent to an appropriation for any improvement—shall we be so uncharitable as to say—*unless they are to be immediately benefitted thereby?*

What unbounded liberality must that

heart possess which dictated the following!

"Though we believe the true interests of the southern counties should lead them to perfect their connexion with the grand canal, yet we would not lay a straw in their way, in their accomplishing, by their own means, the work for which they are soliciting the assistance of the state. On the contrary, we would grant them every facility, and bespeak for them the countenance of their northern neighbors—at least, we would deprecate their disfavor."

Would you, indeed, grant them every facility? and bespeak the *countenance* of your Northern neighbors?

Even if the assertion that "*the Southern road is beset with acclivities, and dangerous crossings, and inclined places,*" to the extent here designed to be understood, were true,—which we take the liberty to deny,—it would not be sufficient reason why the road should not be made; as it is well known to every intelligent reader in the country, that the Pennsylvania and Maryland roads overcome much *greater* and more frequent elevations; and that both of them have already done a great, and are now ready to do a much greater, business; and will, we predict, become successful rivals of the works in our own State, unless more liberal and prompt measures are adopted.

But the Editor may rest assured, that the people of the remote and unimproved parts of the State will not be satisfied with the "*countenance*" only of their fellow-citizens who are reaping a rich harvest from the canals. They look for something more *substantial*; at last, less likely to be affected by a *self-interest*.

They ask only an *equal* share of public improvements, and will not be satisfied with less.

"The southern road is beset with acclivities, dangerous crossings, and inclined planes, which will preclude the transportation of heavy articles over it. In consequence, it will not divert the business of the canal. Again, the elevation of this road at the highest point is nearly 1700 feet, and the whole course of the road is very undulating. A road on the line of the canal would have less than 360 feet of elevation to overcome after leaving Schenectady, and but 250 west of Utica. Beyond doubt, then, the railroads, now constructing and being chartered, on the line of the canal, would engross the principal travel from the west. There can be no room, therefore, for the collision of rival interests, on the subject of the 'New-York and Erie Railroad,' and we hope none will be imagined where none exists. If our southern brethren decline any closer connexion with the Erie canal, they should be left free to their own choice. If their New-York friends are generous enough to make the road for them, we may admire their spirit, however we may wonder at the occasion. But when they come to the legislature for aid, we must ask leave respectfully to decline any beyond our good wishes. It can never be made the interest or policy of the state to meddle with railroads, to become a partner in joint stock companies, to



loan money out of its impoverished treasury to build up a local interest incapable of sustaining itself, or to shoulder every unprofitable work that may be pointed out, in the general rage for speculation. We hope the legislature will take up the subject calmly and deliberately, and that, if the result should be adverse, as we anticipate, to the people of the southern counties, so far as the application for aid is concerned, the conclusion will be seen, by those interested, to be the dictate of sober reasoning, sound policy, and correct principles."

"Our Southern brethren" do not decline connexion with the Erie Canal—they desire all possible connexion with the canal—they do not, however, "desire" to be compelled to transport their produce and merchandize 50 to 100 miles directly from market, and the same distance on the Hudson River, merely to accommodate gentlemen residing on the canal—when, with a railroad through the southern tier of counties, they might go direct to market, and be again on their farms, or in their stores, before they could reach the Hudson River by the canals.

It is, indeed, to be regretted that the Editor "*respectfully begs leave to decline any beyond his good wishes, when the PEOPLE come to the Legislature.*" It has not been generally understood here, so far as we can learn, or in other parts of the State in which we are acquainted, that the LEGISLATURE of the State of New-York is under the immediate guardianship of the Editor of the *Onondaga Standard*!

We also hope the Legislature will take up the subject; and all we desire is, that the subject may be disposed of upon "CORRECT PRINCIPLES."

*Proceedings in the Board of Aldermen 17th Feb., 1835. Reported for the New-York Daily Advertiser.*

#### ERIE RAILROAD.

The Report of the Special Committee of both Boards in respect of the New-York and Erie Railroad was taken up. The Report was of great length, and closes with a resolution, That the members of Assembly and Congress, at Albany and Washington, be directed to use their best efforts to promote the success of the petition.

Previous to its adoption, Alderman STILLWELL rose and delivered the following speech, which was taken down at the time:—

I rejoice, Mr. President, that the Councils of the City of New-York have at last aroused from the lethargy which has enthralled them, and resolved to express the opinions of the people of this great city, on the subject of internal improvement.

I rejoice, sir, because I see in it the harbinger of better times and wiser counsels; because I know, that it requires but a knowledge of the true interests of our country, to induce the people to demand from their representatives the earnest prosecution of such measures as will promote the welfare of this great country.

More especially do I appreciate the feeling now evident among the members of the Board and the inhabitants of this city, when I remember that, when the application for the Grand Canal—a work which has benefitted this city more than any portion of the State—was pending before the Legislature, it did not meet with that cordial and united support from us which a clear perception

of its advantages would have insured to it. Nay, sir, a portion of our delegation in the Legislature, so far from appreciating the enlarged views and prophetic wisdom of one of the greatest minds which this country has ever known, viewed the project as unworthy the serious consideration of the State. But that mighty mind, which only saw difficulties to encounter and overcome them, met the various obstacles which were presented by those for whose benefit the work was designed; and the waters of the Erie were mingled with the Hudson.

The State owes little to our city for that great work; and I rejoice that an opportunity is now offered to prove, that the lessons of time and experience are not lost upon us—that we now know our own interests, and are prepared to say to the North and West, "Go on, and your commercial metropolis will join hand and hand with you for the accomplishment of every work of improvement which will redound to the common interest and glory of our State!"

The report and resolutions now before the Board, recommending the immediate construction of a railroad by the company already formed, and urging upon the Legislature the necessity and propriety of making such loan of the credit of the State as may be required for the successful prosecution of the work, have been prepared with great care, and distinctly point out the practicability and expediency of opening a railroad communication through the Southwestern tier of counties from the Hudson river to Lake Erie. And I rise, sir, with no ordinary pleasure, to answer the call for such general information as I may possess on this subject.

I am not, sir, of the number of those who suppose that an expression of the popular will on this subject would come more appropriately from our representatives at Albany. Sir, it is the imperative duty of the representatives of the city here, to express their opinion on any and every subject affecting the pecuniary interests of this city. Standing here, in my place, I have on no occasion felt myself acting more closely within the scope of my delegated duties, than in urging the adoption of the resolutions on your table. What measure, tending to facilitate the intercommunication of the interior, does not address itself to the direct immediate and pecuniary interests of the City of New-York. Let it be remembered, sir, that this city contains a population greater than that of either of the States of Rhode Island, Delaware, Mississippi, Louisiana, Illinois, or Missouri; and more numerous than the combined population of the Territories of Michigan, Florida, and Arkansas, together with the District of Columbia. She is equal to one-ninth of the population of the State, and her taxable property amounts this year, to 180 millions of dollars, while the state does not exceed 430 millions, —making her liabilities, in case of a direct tax, more than equal to one third of the whole State.

New-York city, in a commercial point of view, is more deeply interested than all the State besides. You will recollect, sir, that the intercommercial trade of this city is supposed to exceed four hundred millions of dollars, and that her foreign and coasting tonnage exceeds all the other cities in the Union. If this fact should create surprise, with what astonishment do we learn, that the tonnage passed during the canal season, through one lock at Utica, has exceeded the whole amount of our foreign tonnage! Does not this prove, sir, that this city, of all other portions of the State, is deeply interested; and shall she be silent when the subject of discussion is *internal improvements*? Sir, we are bound to express our opinions; we are the guardians of the interests of a city, the revenue of which exceeds the income of any five States of the Union. Our responsibilities are great, and our duties arduous; and while we do not shrink from the one, we will not fail faithfully to discharge the other. It is our duty, then, to use every exertion to inform the public mind, and push forward the consummation of the great interests that appertain to us as the first commercial city of this nation, and of this continent.

The route, sir, which has lately been designated for the great railroad avenue, was long since under contemplation for the purposes of a canal or turnpike. It has attracted the attention of

many of our most distinguished men, and in many instances has been warmly advocated. To every individual of intelligence, who casts his eyes upon the map of this State, and is acquainted with the quality of the soil, it becomes a matter of astonishment that this route has never been occupied—that the resources we possess have not been applied to connect the city of New-York more immediately with the great lakes. Although, until recently, our trade with the west has been very much confined to the State of New-York, yet the want of avenues has been seriously felt, through which to transport the products of the interior; and no time should be lost in opening an intercourse with the west, which shall not be obstructed by the frosts of winter, or the drought of summer—which will be sufficiently rapid to secure the conveyance of the public mail, and give to our merchants and traders, both in the city and country, a speedy, certain and safe mode of communication.

A railroad through this region is particularly necessary, in consequence of the great and increasing trade on the waters of the Delaware, Susquehanna, and Alleghany rivers. These rivers are early open in the spring, and float to market beyond our State an amount of property exceeding the computation of all who have preceded us. These rivers run through a section of the State but little known to a portion of the citizens of our country; and yet that region contains a population of more than three hundred thousand of as intelligent, independent, and enterprising citizens as can be found in any State in the Union.

I am not disposed to enter into a minute calculation of the amount of trade which can be diverted by a railroad from our southern neighbors, but I may be permitted to say that, from the known fertility of the soil, the amenity of the climate, and the difficulties and dangers of the navigation of the streams referred to, there can be no doubt that the travel and products from the interior, together with the additional merchandize sent from this city to the section lying adjacent to the route proposed, will insure a revenue sufficiently large to cover the interest and expenses of this great projected work.

But, Sir, it is not my purpose to confine my views to the south-western counties of this State. To appreciate fully this magnificent undertaking, we must extend our view over the great waters of the mighty West. In that far country, which is watered by the tributaries of the Mississippi and the Lakes, where, but a short time since, lay an interminable forest, States have sprung into being, and are now densely populating with a race of men, well known for enterprise, and remarkable for intelligence. These States will soon send to market an illimitable amount of the products of the earth, and receive in return the fabrics from the manufactories of the East and of Europe. The intercourse with the great West is without obstruction, after passing the boundaries of this State. We have a lake shore equal to the seaboard of the United States, and open to navigation at all seasons of the year. The only obstacle to a steamboat passage from the Lakes to New-Orleans, lies between the waters of the Michigan and the Illinois, a distance of only 94 miles. And to remove this only difficulty, the General Government have already appropriated every second section of land which lies between the two points to be connected. With an enterprise and intelligence worthy of the State, Illinois is making provision to construct a steamboat canal between Chicago and the Illinois River, of a depth of 15 feet, and a surface of 90.

The State will find very little difficulty in uniting the waters contemplated.

The streams which run into the lake, and those which empty in the river, are known at one point to be closely connected; and it is not unfrequent during the high freshets in the spring to find the waters mingling, and boats of ten tons burthen have been floated from the lake to the river.

When this communication shall be completed, a continuous steamboat navigation will be opened, of more than twenty-five thousand miles, on our western waters.

In addition to this, a canal will soon be completed between the Maumee of the Lakes and the Wabash; and it is also made manifest, that



there is an easy and short cut from the Maumee to the St. Joseph's. This last river empties into the southern part of Lake Michigan, and is said to be navigable more than 130 miles by steamboats drawing 3 feet water. We have also the extended Lake navigation to the north through Lake Superior and Huron, and, returning around the southern side of Erie, we find the Ohio Canals, which open a communication with an immense region of country above and below their junction with the river. To contemplate this boundless country, brought within the water range of these great Lakes, and not feel a desire to secure to our favored city its rich commerce, is to be indifferent to every desire which stimulate men to active exertion. It is unnecessary, sir, for me to dwell upon the value or importance of this great interior trade—a trade destined to surpass that of any country on the face of the globe—swollen by the contribution of our hundred lakes and thousand rivers, which fertilize a soil ere long to sustain one hundred millions of freemen. The commerce of such a country, with such a population, by the unerring rules of arithmetic, would require and sustain a commercial metropolis of five millions of inhabitants. Yes, sir; I assert that this city will have its numbers increased to that size, if its enterprise shall keep pace with its interests, in giving facilities to its interior trade. But, sir, we must be up and doing; we must leave nothing undone, which intelligence, enterprise, and means, can accomplish, to secure as speedily as possible this immense prize. Already have we rivals in the field—competitors of no ordinary consequence. The great state of Pennsylvania, with a perseverance unexampled, and a boldness of purpose which elevates even her high character, has, after years of toil and millions of expense, pushed her improvements to the borders of her State. The supposed impracticable barrier of the Alleghany has been overcome: her canals from the east have moved on slowly, but surely, and now touch the base of the mountain, from which a railroad is thrown over the ridge, and unites at the base on the western side with another canal, which already extends to within seven miles of the line of Ohio, and about 84 miles from the great Ohio canal which empties into lake Erie. This communication, it is said, when completed, will afford to the merchants of the west, a shorter and cheaper route to market than any we now offer them. We all know that these two considerations have a preponderating influence in commerce, and must give a preference to Pennsylvania; especially, when we add to these the further fact, that the Ohio and Pennsylvania canals are open one month earlier in the spring, and continue open more than a month later in the fall. Upon referring to the several reports of the committees of the States of Ohio and Pennsylvania, it will be seen that there is a fixed determination to unite these canals, within the coming year. If this rich trade should be once diverted from our own to any other city, we may then bid farewell to all our dreams of greatness.

It is also said that Pennsylvania, true to her own interests, has increased her already large debt of more than twenty millions, by an appropriation for a canal up to our State on the Susquehanna. She has set apart one million for this purpose; and will bring her works within seven or eight miles of the southern termination of the Chemung canal. This improvement will draw down to that State a great portion of the Susquehanna trade, and be of great advantage to the citizens of our State in that section. And while our own resources are not applied to develop the trade of that region, I can truly say, I congratulate the inhabitants that they find the authorities of Pennsylvania more ready to promote the interests of our country, by wise and judicious improvements, than the legislators of our own State.

Mr. President, the southern tier of counties have heretofore asked in vain. Year after year have they wearied the State with unceasing supplication. Coaxed, flattered, and threatened, by turns, their hopes and fears have been made the sport of political excitement and individual ambition.

Who can look to that region, and view her beautiful valleys and wheat-crowned hills—her mountains and her streams—the great variety of

her soil and productions—her numerous, intelligent, and enterprising population—and not admire the enduring patriotism which induces such a people to remain subject to a control which compels them to be, not only lookers on, but actual contributors, to the welfare of other more favored sections of the State.

They are not only responsible for the payment of the debts incurred for the construction of our works of internal improvements, but they are pressed with a double burthen, and are compelled to contribute to the very works which impoverish themselves, by enabling their fortunate neighbors to undersell them in the market. This devoted region has been repeatedly told by the State, "that her mountains were impassable, and her soil unproductive, and that as nature had not been bountiful, the State would not assist in bettering her condition." Sir, destiny cannot be cheated of her own; and I now predict, that the region through which the Erie Railroad is to pass, will, within twenty years, be the most densely populated and wealthy section in this State. But, Sir, what is now asked for this neglected portion of our State? Not money, Sir! No, Sir; that has been asked until delay has sickened the hearts of her citizens. They now require the State to advance her credit to the extent of two or three millions, after the work is commenced; and take a mortgage on the road. With this the Company will be content to proceed, and will prosecute the work with vigor. It is true it is a small request; but having been so often refused, this is all that the friends of this devoted region at present demand; and this, Sir, they do demand, and they call for the judgment of their old associates, and those who are aware of the wrongs and privations which for many long and tedious years they have endured. They are wearied with delay, and have ceased to look to the State for full justice. They have turned their eyes to the enterprise of individuals, and they have not been mistaken. Sir, warmly and sincerely do I congratulate that section of the State that their interests and those of the country are committed to the hands into which they have fallen. The charter granted by the Legislature has been preserved; the stock, to a certain extent, subscribed; and the Company organized. A President and Directors have been selected, equal to any other body of men in talent, energy, resources, and enterprise. In addition to which, they are governed more by a sense of public good than individual gain; and know well the great duty and responsibility which the situation they occupy imposes upon them. Mr. President, if it had been left to myself to single out, in this great State, the individuals into whose hands a work like this should be committed, I could not have found those who would have more fully met my approbation. These men, Sir, are deserving of the full confidence of the public; and their characters give evidence that the work will be completed in the shortest period their means will admit.

A survey of this route has been made, and laid before the Legislature. The result to which the Engineer has arrived is so entirely at variance with all the established and received opinions on the subject, both as to grade and cost, that the obstacles would seem to have been entirely overcome. The objection which has so long existed to the improvement of this country, has vanished into thin air before the researches and report of the Engineer. Late experience has proved that railroads may be undulating; that, instead of 20 feet elevation to the mile, steam cars will overcome 176 feet; and that they can also traverse, without danger, serpentine roads of 500 feet radius. The practicability of this route is placed beyond doubt; and the estimate of about five millions is so far within the supposed cost, that we can no longer doubt the construction of the work.

Its importance and revenue must be immense. Not only will it intercept all the trade going down the Susquehanna, Delaware, and Alleghany, but it will bring the products of the far West to our navigable waters at all seasons. We say all, because railroads, we know, are very little impeded by snow and ice. It will, therefore, have a twelve months' trade; and from this, together with the rapidity with which the cars will move,

it will be able to transport a larger quantity of goods annually than now passes the Erie Canal. We may also add the transportation of the mail and passengers, because it is confidently asserted that the passage through being a distance of 483 miles, can be accomplished in the short period of 48 hours. That the road will prove a very profitable concern, when completed, cannot admit of doubt: the great difficulty consists in procuring so large an amount of money for any purpose, in a country where enterprise is only limited by the want of means.

The cost of a work above the actual value of the labor, is of immense consequence to our people, whether the money be expended by the State or individuals; for if a good work be constructed at a fair expense, the tolls will be much less than if the same work had cost more than its value. This is the great point: and therefore, we should be ever careful that good officers and servants be employed. Individuals are much more likely to economise, and procure the construction of a work for a small sum of money, than the public; therefore, it is generally better to assist individuals in a public enterprise, when they will undertake it—than become the sole proprietor only in cases where individuals do not desire to assume the responsibility.

The people are not interested in the ownership of a canal or railroad. The great object with them is to have them constructed. What is an expense of one, two, or ten millions of dollars, to the advantages of a regular, certain, speedy, and cheap intercourse? When the convenience of a whole people is advanced, how can you compute the value? Can you say what amount of benefit is derived to a particular county or town? But, above all, can you tell how much this city is to be the gainer, by the proposed improvement? In 1820, when only a few miles of the Erie Canal was completed, and one thousand dollars of tolls had been received, the population of this city was 123,000, and her taxable property 69 millions: in 1834, her population was near 260,000, and her taxable property 180 millions, thus showing that, in fourteen years, this city more than doubled the one, and trebled the other. This is not the only instance: look to your numerous cities and villages, which have sprung into existence since the termination of the last war with Great Britain; the immense appreciation of the lands and products of the country; and the thousands that have grown rich by the mere force of the prevailing causes. Buffalo, which was laid waste by the enemy during the war, has risen like a Phoenix from her ashes, and now numbers more than twelve thousand of an intelligent, independent, and enterprising population, as ever engaged in agriculture or commerce. She was, at the gloomy period to which I refer, destitute of commerce, or means; one schooner only was left to navigate that great inland ocean. She has now a trade equal to many of our Atlantic cities: no less than 34 steamboats enter her harbor, and more than 250 schooners are engaged in her commerce. It were useless to refer to individual examples of the prosperity which pervades the regions within the influence of the Erie Canal: we have grown populous and rich beyond precedent; and it is not an extravagant estimate to say, that the internal improvements already completed in this State have added three hundred millions to the public and private resources of the country. May we not well say, that the people interest themselves little in the mere ownership of these great works? What are the eight or ten millions expended in the construction of our public improvements, to the two or three hundred millions which have been added to the general account? We may well say, then, that the people should urge the construction of railroads or canals, wherever they can be made, regardless of the amount of debt, or the hands into which the works may be placed. All that should be required is, that the general supervisory power be retained in the possession of the State. There are a number of reasons why railroads should not be owned by the State, which it is not necessary to allude to at this time, and which do not apply to canals; but the fact, that the cars and transportation of property should, to a great extent, be committed to the owners of the road, and the consequently



Great numbers of agents and servants, is of itself to my mind conclusive.

Every work, sir, that individuals can be induced to construct, may be safely and properly committed to their hands—not only for the reasons which have been presented, but because the state has enough, and more than enough, to do, for the next coming ten years, and because it is her bounden duty to allow no time to elapse before again commencing an active career.

The first step should be the establishment of an internal improvement department, and a fund to be called the internal improvement fund,—upon which all expenses should be charged, and into which all the revenue from our public works should flow. Make this fund sacred for the objects to which it shall be devoted. Let it form a system—let it be complete in itself—let accounts be stated between the canals and the state, and settled, issuing certificates of stock (redeemable out of this fund,) having not less than twenty or thirty years to run. Then let it be declared by law that the tolls on our works of internal improvement shall not be allowed to exceed the interest and expenses on the works for the next ten years. Make your system complete, by declaring that the channels of intercourse shall never be taxed as a source of revenue beyond what may be necessary for paying the principal, interest and expenses, which may be caused by the system itself.

If this course be once adopted, the State will be enabled to construct all the canals that may be needed, and to subscribe to works in which individuals may have engaged, without any fear of imposing a tax upon the people. This will be an "Internal Improvement System," perfect in itself, looking to no other fund for a supply, and apprehending no imposition for general purposes. By establishing this system, and postponing the payment of all debts for twenty or thirty years, we shall be enabled to accomplish every object we may desire, within one-half the period which any other plan can present.

To any person conversant with the extent of country to which we are now looking for an augmentation of our trade, it will be unnecessary to say that our present canals are entirely inadequate to the increasing intercourse beyond our own State, and that we cannot be too expeditious in meeting the exigency which is approaching. We must not only increase the capacity of our canals, but we must reduce our tolls. The reduction of tolls tends to increase the amount of trade, and will continue to do so, until our canals can no longer accommodate the products which are seeking a market in our city. The debt that now binds our tolls will soon be redeemed, and we shall be left free to adopt that course in relation to the tolls that the wisdom of the State may devise.

It is not, however, necessary, and has not been, to await the extinction of this debt before incurring another: the canals, it is well known, are not sufficient for the wants of trade, and the difficulties encountered during the business seasons are beginning to be seriously felt. Last year a law was passed with a view to some improvement in the navigation of the Erie Canal—I understand, for the purpose of adding to the width of the canal, and creating double locks. I have taken some pains to inquire into this subject, and with great deference to the opinion of the commissioners, I am compelled to say that I have arrived at conclusions different from those supposed to be entertained by the State officers.

It is well known that it is now necessary to cheapen the cost of transportation, that we may enter into a more close competition with our neighbors on our northern and southern boundaries. By deepening the canals about 3 feet, and adding to the locks so as to meet the increased depth, an immense gain would be the consequence. If the canal were 3 feet deeper, the same boats that are made for our small lake trade could be loaded with twice the amount of products they now carry, and could be propelled by the same power, abating one half mile per hour in the speed—that is to say, a boat carrying double the quantity could be propelled at the rate of 3 miles the hour. The effect of this arrangement would be to enable the canal to float double the amount of goods on the same surface, in the

same time, and at about the same expense. This would be an enormous gain for a very small cost. The two things most needed are at once obtained—quantity and cost; to make our canals competent to do the business required, and reduce the cost, is of the greatest consequence. To place the two modes of improvement side by side, will easily test the question. Suppose you widen the canals fifteen feet, is it not evident that you must add to the number of boats or greatly increase their width—that the present locks would have to be altered and doubled, to meet the change in the canal,—and that no corresponding reduction can take place in the cost of transportation? Double time will be required for passing the same quantity of products, and consequently double expense and inconvenience to the State officers and the transporters. In the one case, an addition of surface to the canal, with additional locks, at great expense, without affecting the cost of transportation—in the other, a small expense, whereby the same boats, the same boatmen, and the same horses, in nearly the same time, will transport double the tonnage—the cost to the boatmen is reduced nearly one half—the expense of passing one boat, instead of two, should have the same effect on the tolls—so that we can with great propriety say, that this simple improvement, which will require very little additional water, will actually double the capacity of the canal and reduce the cost of transportation nearly one half. The great importance of this change must be evident from two prominent facts: first, that our canal is already crowded, and, second, that our neighbors afford a cheaper and more expeditious route to market. We have powerful and determined rivals for the trade which we desire to possess; and we cannot shut our eyes to the fact that they are already "going ahead" of us. Our neighbors have aroused, and are preparing to put forth all their strength. The current is already setting with some force towards the Canadian market, and it will be well for us to look in that direction for some information.

The cost of transporting a barrel of flour from Ogdensburg and Oswego, in this State, and from Prescott, on the Canada side, to Montreal, is 30 cents. To take the same from Rochester, about 40 cents; from Buffalo or Cleveland, through the Welland Canal, about 55 cents. This is the present cost; the toll on a barrel of flour from Buffalo to Albany is 33 cents, and the cost of transportation from 65 to 80 cents. The difference in this article alone is more than fifty per cent. in favor of the Montreal market. The cost on every article is of course in about the same proportion. It will be perceived, that if the tolls were entirely removed, the cost to our market would still be greater than to Montreal; it is therefore apparent, that every improvement should be made with a view to a reduction of the expense of transportation. The tolls we can change, as circumstances require, but the labor of our people must have its just reward. The expense to the Montreal market, as stated above, will not long be the standard. The Canadas are awake to their interests; already has the Government of Great Britain expended near £600,000 sterling on the Rideau Canal—and the Provinces are now engaged in improving the navigation of the St. Lawrence. They employed Judge Wright to survey the route of the river; and having ascertained that an improvement is practicable, they are preparing to make such improvements on the borders of the river as will enable them to pass vessels of the largest class to Prescott, and from thence to any of the towns on Lake Ontario. They are also about to purchase the Welland Canal, and improve it by stone locks. So that, within a few years, the navigation will be complete for a square-rigged vessel, from the Ocean to any part of either of our great inland seas. This will enable them to open the navigation with Montreal one month earlier than on the Erie Canal. It will also reduce the cost of transportation to about 25 cents from Cleveland to Montreal, on each barrel of flour; and will have the same effect upon the ascending trade. Competition is becoming formidable; and it will require an extra exertion to maintain the ascendancy of New York. We must provide means to communicate with the great route at all seasons

of the year, and with great facility; and also increase the capacity of our canals, and reduce the charge.

And now, sir, having taken this general survey, let us again turn to our own State. I would now ask, is not the course of policy we are to pursue clearly indicated by this investigation?

That a ship canal must be opened between the waters of the Hudson, and the great lakes, is so evident, that I can hardly believe a difference of opinion exists on the subject. After the survey we have made of the immense West,—of the thirty thousand miles of steamboat navigation, and the extended minor tributaries,—we have only to ask, should not the trunk be greater than the branches? If we wish to secure the trade of the great West,—if we wish to put our superiority beyond reach,—then, there can be no doubt, that in a commercial point of view, a ship and steamboat canal is indispensable: and as we have already by the Erie and Oswego Canals a water communication, it cannot be doubted that the object can be accomplished. Judge Wright entertains the opinion that it is practicable, and that it can be accomplished at a very moderate cost.

This latter question should have no weight in deciding this important point. The object itself is beyond price; it is too magnificent to permit a few millions to have the least influence. It cannot for a moment compare with its great utility.

Allow me, gentlemen, to direct your attention to the magnitude of the object. Consider the height to which we shall elevate the character of the State. Imagine our own city connected by a steamboat communication with our inland seas, and the thousand rivers of the mighty Mississippi. Look forward ten years, when you shall see all this,—when your wharfs shall be crowded with steamers from the ports of twenty inland States,—when your internal commerce shall have reached a point which will exceed that of all the cities of Europe,—you can then appreciate the feelings which compel me to say, look not to the cost of this great work.

Sir, this question of dollars and cents, this fear of debt, is constantly involving us in errors. It was the great obstacle to the accomplishment of the projects of the great Clinton. He, sir, found more difficulty in overcoming this than every other prejudice. But he persevered, and subdued every enemy to the prosperity of his beloved country. His mighty mind embraced the compass of the continent. He predicted the importance of the commerce of the West. His ambition was the happiness and glory of his country. And with an integrity of purpose and firmness of decision never surpassed, he was at last enabled to subdue the two greatest enemies to the prosperity of a country—ignorance and sloth.

It was he,

— "Whose comprehensive view  
The past, the present, and the future, knew."

The name of Clinton is identified with the best interests of a great country. He taught us that intelligence, enterprise, and industry, are the wealth of our nation. And that in a field so wide there can be no room for jealousy or nautical rivalry. He directed our ambition to the improvement of the minds of our youth, and the development of the resources of our country, and through him we have a practical illustration that "knowledge is power."

To accomplish the last great objects to which I have called your attention, a large amount of money will necessarily be required. It is supposed that five millions may be needed; and I am aware that notwithstanding the evidence which has been presented of the immense appreciation of the value of the taxable property in this State, that this will be the great obstacle to the attainment of our wishes. Fear of debt is sometimes prudence, and frequently commendable; but had our people acted upon the plan of owing nothing, what would have been the condition of our country? Sir, debt in a new and improving country like ours is the aliment of its prosperity. Where the people are enterprising and prosperous, interest will always be high; and where ignorance and sloth prevail, or there is no field for exertion, as in many parts of the old world, interest will be low. When a people have the rich resources of a new country to develop, then the means must be of



inestimable value. Let us incur debt, and press forward with every improvement the country is susceptible of—deferring the payment of the principal some twenty or thirty years. *It is our duty.* Defer the payment of debts until the country has become strong—until our immense forests have receded before the strong arm and enterprising spirit of our people—until the Far West shall be throwing off from her bosom the rich fruits of her prolific soil—until our city shall be the depot of the whole continent—until the trade shall have been secured to our enterprise—and until the people can afford to pay no more for the use of money, in their private business, than is paid by the State. Before this time shall arrive, then, an imposition of 3 cents per barrel toll on flour will pay your debt as rapidly as the present rate of 33 cents. Your trade by this course will be more than twenty times the present amount. Your facilities will be greatly increased, and the cost by transportation become almost nominal. An over anxiety to pay debt by imposing heavy tolls, in a country like ours, is the greatest curse that can befall us. Do not, therefore, gentlemen, allow yourselves to be led away by the representation that it is prudent. It is the height of imprudence. Money in our country, when expended in works of internal improvement, in many instances, is worth one hundred per cent. If any one doubt it, let him turn to the country that is traversed by our grand canal, and inquire whether property has not advanced more than two hundred per cent. in consequence of this work. Go where you will, sir, you cannot place an estimate upon the advantages which debt has, and will yield, to our country. Let us then press forward in the noble race which is before us, regardless of the cost, except so far as to prevent all useless or profuse expenditure; and depend upon the development of the resources of the country for our reward.

There is yet another point of view in which this question of a ship canal is to be considered, and which is of immense importance. It will have been observed, that the British government have it in contemplation to so perfect the navigation of the St. Lawrence, and the Welland Canal, as to admit of the passage of an armed vessel from the Ocean to the Lakes. This, it is supposed, can be done at an expense of about a million of pounds sterling. The communication between Kingston and Montreal, by the Rideau Canal and Grand river, is now completed, at an expense of near three millions of dollars.

It was intended as a medium of military intercourse, and was suggested by the difficulties which that government encountered during the war in procuring supplies from below. It is sufficiently large to pass small steamboats; and a communication of this kind is now kept up between the two cities. The proposed canal along the river St. Lawrence is now being constructed, and will afford in a few years the facilities required. It will be an immense saving to the nation. The British government will have no further use for military or armed vessels on the lakes, in times of peace. Ships can be sent from the ocean to any part of the lakes during the canal navigation; and this fact is of immense importance in a military point of view. Without any armament on the lakes, they will always be ready to defend their frontier; and with no actual cost they will always be ready for war. They will be able at any time to cover the lakes with armed vessels, and outnumber us at every point. It becomes our interest, as well as duty, to provide against such an emergency—not by lining our shores with fortifications, or filling the lakes with armed ships, but by following the example of our neighbor, and constructing a communication that would pass any of our armed vessels in ballast. This will be a ready and sufficient security. It will be doing no more than our citizens on the lakes have a right to demand. It may be said, that the general government ought to construct every work which is so essentially national in its character—I answer, that the Empire State is able to take care of her own interest; and if she had no pride, still she has an interest to consult. This canal will be the grand conduit through which her commerce with the great West must pass. It is therefore proper, that she should hold the key—that the treasures, which are rightly hers, should not be under the control of another. It is

properly her own, and she would be unworthy of her character for foresight and enterprise, if she should allow any second party to participate in a work which is so worthy of herself.

And now, sir, may we not with great propriety say, *the State has enough to do*; that there is no want of objects to which to direct her attention; and that every work which individual enterprise will undertake, should be committed to their hands. Stimulate, sir, by every means that may be required, this laudable ambition of individuals. Depend upon it, too much cannot be done. Too many improvements will not be made. Dispense on all occasions the munificence of the State in such shape as will subserve to the greatest extent the interests of the people.

When all that I have pressed upon your attention is completed, we shall be on an eminence which the proudest empire on the globe might envy. And, sir, all that is now demanded of the State can be effected. This great channel of steamboat communication can be opened. The railroad of which the one under consideration is only the *beginning*, can be completed. And a ready, cheap, and certain communication will be opened *throughout the year* with the whole of our interior. The cars shall be pouring into our city in an interminable current—pressing down through its centre, and filling the stores, and warehouses, and ships with the produce of the West—infusing a life into every department of industry, and driving far from us the lethargy of our present inactive winters. Your island shall be one great warehouse for this mighty continent—and your docks and slips, from Fort Washington to the Battery, and from Whitehall to Harlem, shall be filled with the thousand steamers that will navigate the waters of the Mississippi. Your harbors shall be crowded with the ships of every nation, and this island will be the mere centre of a city which shall spring up on the shores of Long Island and New Jersey. Is all this fiction, or is it fact? Is it the offspring of an over-heated imagination, or is it only the result of a knowledge of the resources of our country? Sir, it is true. And I am glad to have the opportunity to predict, that if our State is true to her interest, all will be accomplished.

When our State shall once more be governed by the counsels of the mighty dead—when the mind of a Clinton shall be again the leading star in our councils—then will every consideration give place to the honor, the glory, and the welfare of our country—then the name of New-York shall convey the idea of superiority, and her sons shall be proud of her character, and rejoice in her prosperity. Every one should participate in the honor and glory of his country. Every true son of New-York will be alive to her every interest, and while witnessing her splendor and the triumphs of genius and enterprise, will involuntarily exclaim,

"Lives there a man with soul so dead  
That to himself hath never said,  
This is my own, my native land?"

**BLACK RIVER CANAL.**—This is a work which has been long agitated, yet notwithstanding its great importance, to restore a *just equilibrium* to the trade of the State, and to confer equal benefits upon all its citizens, very little progress has been made. The people in the Northwest section of the State, like those in the Southern counties, have contributed to those works which were designed, commenced, and completed, and which should always be considered *only* as the great *ARTERIES*, into which the lesser channels should flow from every extreme part of the State, lying north of, and contiguous to, the main works.

We have heretofore devoted very little space to this contemplated work from a lack of information, but having, through the politeness of friends, received a report upon

the subject, we shall endeavor to make extracts from it, which may be interesting to our readers.

The following extract from a communication signed "CINCINNATUS," and published in the Jefferson county papers in December last, is a well-written, plain, honest statement of facts, and applies to other sections with equal truth as to the Black river section. We shall endeavor to find room for more of the communication, and should like to hear directly from its writer, for the Journal.

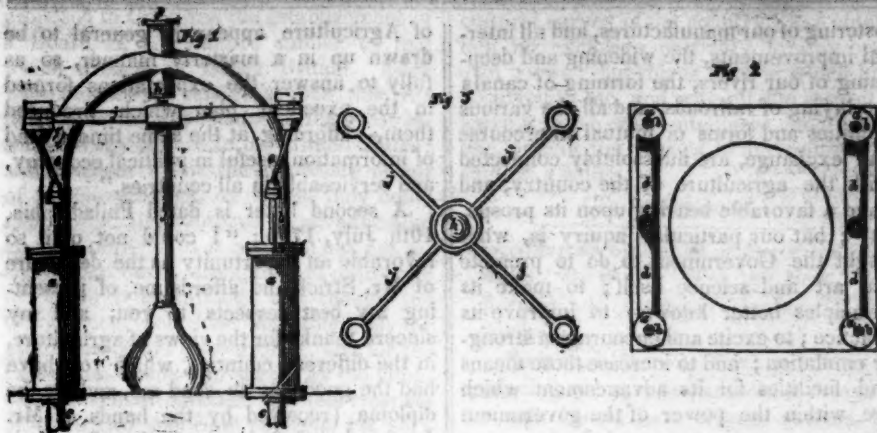
"Let the faith of the state be pledged for the amount necessary to be drawn, the purse strings of the capitalists unloosed, the hand and foot of the honest laborers put upon the spade; let the improvement no longer be merely talked of as 'a project,' a fruitful source of debate; let the ground be broken—the waters of two streams united for a valuable purpose; bid the forests recede—agriculture, manufactures, the arts and sciences, flourish; let us have no more of that *cold calculating policy* designed to determine *what amount the state may speculate out of our trade within a given number of years*—through the medium of tolls;—we say emphatically, do unto us as you have done unto yourselves and others, aided by means derived from the whole, and for which the faith and honor of the state stand pledged; we will then be upon an even footing, realizing advantages extended to others, but heretofore withheld from us, vastly increasing our means to assist in paying off our increased indebtedness. Our claims being just—the practicability of construction admitted—the consequent increased prosperity of the country in view, the credit of the state 'equal to any emergency'—where, we repeat, are to be found tenable objections to making an *immediate* grant for the work? The time has gone by when to talk about the subject will satisfy us—*effective measures* are now demanded. Do we say demanded? Yes! demanded, as well by that sense of justice, due from one portion of a community to another portion of the same community, as between man and man.

"Maintaining that it is the duty of the Legislature to *divide* the bounties of the state, as equally as their judgment and the rights to which they have access may enable them, the same rule applies to loans on the credit of the whole which should not be appropriated for the benefit of but a part, and deny to a remaining part the like facilities. Unnecessarily to procrastinate in its effects equal to a denial."

*Specification of the Patent granted to JOHN BARTON, of Goswell Road, in the County of Middlesex, Engineer, for Improvements in the Construction and Application of Pumps and Machinery for raising Fluids and other Purposes.*—Sealed June 1, 1833.

To all to whom these presents shall come, &c. &c.—Now know ye, that in compliance with the said proviso, I, the said John Barton, do hereby declare the nature of my invention, and the manner in which the same is to be performed and carried into effect, are fully described and ascertained in and by the following description thereof, reference being had to the drawings hereunto annexed, and to





the figures and letters marked thereon, (that is to say):

My invention consists in certain arrangements of apparatus and machinery, whereby I am enabled to take advantage of any vibration which may be produced to the body or apparatus or vessel, in which my improvements are placed, and thereby produce to the pump or pumps a constant working action; thus, for instance, in a ship or vessel, the motion caused whilst sailing or lying at anchor will at all times be producing more or less action to the pumps on board, when constructed and applied according to my improvements. And my invention consists in so suspending or connecting a weight or weights to the piston-rods of pumps, that in whatever direction an inclination may take place, such weight or weights, from their being able to act in any direction, will cause a working motion to the pumps, and it is the giving a universal power to such weights to turn to their work, in whatever direction the inclination or oscillation may take place, which constitute my present improvements. But in order that my invention may be most fully understood, I will describe the drawings hereunto annexed, which represent an arrangement or combination having four pumps, by which it will be evident that other numbers of pumps may be worked in like manner by my improvements. But I conceive that it will not be necessary for me to describe more than these arrangements, as any competent workman will from these be able to apply my improvements to other numbers of pumps. And I would observe, that my invention does not relate to the ordinary parts of pumps, the constructions of which are well known.

Fig. 1 represents an elevation; fig. 2, a plan; and fig. 3 is also a plan of the cross-arms and handles by which the four pumps are worked. By these three figures my invention is represented as applied and arranged for working four pumps; *a, a*, being four ordinary pump-barrels or cylinders; *b, b*, their piston rods; *c, c*, their induction or suction pipes; and *d, d*, their eduction-pipes, which discharge themselves into the pipes, *e, e*, from whence the water may be conveyed to any direction from the point, *f*, by connecting proper pipes thereto; *g* is a rod suspended from above

at *h*, where the rod, *g*, has a spherical ball at its end, which works within a spherical socket formed at *h*, and thus producing a universal joint, as is well understood by mechanics, by which the rod is capable of oscillating in any direction. On to this rod, *g*, is affixed the cross-arms, *j*, which arms are at right angles to each other, and work the four piston-rods, as will be evident on inspecting the three figures of the drawings, the piston-rods being connected by connecting rods, working by universal joints, in like manner to that before described. Now it will be evident, that if a weight be suspended to the rod, *g*, sufficiently heavy to work the four pistons, and the quantity of this weight will vary even for the same sized pump-barrels, depending on the perpendicular height of the lift, it will not be necessary to give any particular dimensions; all that it will be desirable to observe is, that whatever be the pressure of the water to be lifted, the weight in falling from side to side shall be sufficient to overcome the resistance.

Having now described the nature of my invention, and the manner of combining and using the same, I would have it understood that I am aware that a weighted pendulum has been already used for actuating pumps, but has only been capable of swinging or vibrating in one direction, consequently was of no use in situations where the vibration, or oscillation, is continually changing its direction; I do not, therefore, lay any claim to a weighted pendulum working in such manner, but I claim the giving a universal property to turn, in any required direction, to a weighted pendulum actuating pumps, whereby, in whatever direction the vibration or inclination may take place, the said weighted pendulum, or other similar apparatus, may be able to turn in that direction, and work the pump or pumps; for I would observe, that although I have only described an arrangement of four pumps, it will be evident that similar effects may be produced to one or more pumps.—In witness whereof, &c.

Enrolled November 30, 1833.

REVENUE OF NEW-YORK.—The amount of duties accruing from importations in this city for the year 1834, is ascertained to be TEN MILLIONS ONE HUNDRED AND EIGHTY FOUR THOUSAND DOLLARS!!!

Anchor Ice. By JACK FROST. [For the New-York Farmer and American Gardener's Magazine.]

There is perhaps no operation in nature which occurs so frequently, and yet is so little understood by people in general, as what is commonly called anchor ice; or the formation of ice, either adhering to the bottom, or to stones and other solid bodies below the surface of the water, and which is generally considered a prognostic of an approaching thaw.

It has been said by an ingenious writer, that "a mystery explained is a mystery destroyed," and nothing could exemplify this saying better than the wonderful mystery of anchor ice, which a very little explanation will render no mystery at all.

It is a constant law of nature, that every substance is expanded by heat and contracted by cold. And it is another law, that any substance immersed in a fluid or liquid, will float at the top or sink to the bottom, in proportion as it is specifically lighter or heavier than the medium in which it is placed. Hence, if any particles of water are colder than the rest, those particles will be condensed and become specifically heavier, and will therefore sink to the bottom. Thus, as the particles of water give off their heat to the superincumbent atmosphere, which is colder, they sink to the bottom, giving place to others, which are cooled and sink in like manner; and the particles thus cooling and sinking, receive fresh heat from the surrounding particles, which are warmer, and of course rise again, giving place to the colder ones behind them; thereby keeping up a constant action of the particles of water from top to bottom and from bottom to top, which is more or less active, according to the difference of temperature between the water and the atmosphere above it.

From these facts it is evident, that, as the coldest water will always be at the bottom, no water can ever become frozen at the surface until the whole body of water becomes cooled down to near the freezing temperature; and this explains the cause why deep waters do not freeze as soon as shallow, and why the ocean never freezes at all.\* And from the same causes, were it not for a counteracting principle, showing an equal display of infinite wisdom, water would always begin to freeze at the bottom, and we should know no ice but anchor ice.

When the water has given off that portion of caloric, which was necessary, under the atmospheric pressure, to sustain it in a liquid state—in other words, when it is cooled down near to the temperature of — Fahrenheit—the change commences, from the liquid to the solid state; in which change, as the operation of crystallization begins to take place, the frozen particles, instead of farther condensation, begin to expand, and becoming specifically lighter, float on the surface, and this process continuing for a time,

\* Except in shallow places round the edges, and within the polar circles.



the water becomes covered with a body of ice.

Along near the middle of the temperate zone the water is seldom covered with ice more than from 12 to 18 inches thick. Below this the water still remains above freezing temperature. The ground, uncovered with water, probably, at times, and in exposed places, freezes a little deeper.

If from a pond or lake which is frozen over, the water discharges itself by a short and pretty rapid stream, into another, which is also frozen, the water in passing will not perhaps cool sufficiently to freeze in its passage; and if the stream is of considerable depth, it will protect the ground from freezing below. But where the stream is shallow, if the cold weather continues long and severe, the ground at the bottom becomes frozen, and the water passing over it freezes to it; and every stone or other substance, lying upon the bottom, becomes the nucleus to a body of ice.

In like manner, where the water is raised by a dam, and the pond frozen over, if the weather continues very cold for a long time; and especially if the dam is long, and consequently the sheet of water which passes over it very thin, and therefore not sufficient to protect the dam from frost, the dam in that case will become so cold that the water will form ice in passing over it, which adhering to the dam as a nucleus, the whole dam will become covered with ice, which will continue to increase in thickness, till the obstructed water rises and breaks away, unless it finds an outlet somewhere else.

In common streams, when the cold commences suddenly, the surface becomes frozen, before the ground at the bottom is cooled to freezing point. But when the cold becomes intense and continues long, the ground and stones at the bottom are often cooled far below freezing, and though, perhaps, already frozen at the top, freezes to the bottom and to the stones, and frequently so interrupts its own passage as to force its way over the ice above, or if the surface was not frequently frozen, the bottom will be covered with ice and the water will run over it.

With respect to its indicating a thaw, there can be no doubt but it is just as sure a token as a long spell of severe cold weather, for one can scarcely happen without the other, and as one extreme of weather generally follows another, when the weather has been very cold for as long a period as usual, it is a pretty sure sign it will not continue so much longer, and of course there will be a thaw; just as after a long season of dry weather we expect rain.

JACK FROST.

Lansingburgh, 17 Jan., 1835.

**Political Agriculture.** By H. C. [For the Quarterly Journal of Agriculture, Mechanics, and Manufactures.]

What should the Government of the United States do for Agriculture? This is an important inquiry. Agriculture is essentially the great interest of the country. The just protection of commerce, the

fostering of our manufactures, and all internal improvements, the widening and deepening of our rivers, the forming of canals the laying of railroads, and all the various facilities and forms of mutual intercourse and exchange, are indissolubly connected with the agriculture of the country, and have a favorable bearing upon its prosperity; but our particular inquiry is, what ought the Government to do to promote the art and science itself; to make its principles better known; to improve its practice; to excite and encourage a stronger emulation; and to increase those means and facilities for its advancement which are within the power of the government alone.

The British Government has been most wise in their concern and liberal in their expenditures for this object. They appointed a Board of Agriculture, at the head of which was placed that enlightened and indefatigable friend of the cause, Sir John Sinclair. Under their direction, an exact and complete survey was made of the several counties of England and Scotland, the reports of which surveys were printed at the expense of the Board. They embody an immense mass of valuable information, and contributed in an effectual manner to the improvement of the agriculture of the United Kingdom.

General Washington, himself passionately devoted to agriculture, familiar, even amidst all his various concerns, with its practical details, and aware of its importance to the country, in some letters to Sir John Sinclair, who had sent him some of these reports, perceived at once their great value, and looked forward to the establishment of a similar board among us, whose labors might be directed with equal success to the same valuable results. His letters are deserving of attention, and I here quote parts of them.

Philadelphia, 20th July, 1794.

"I have received with peculiar pleasure and approbation the specimens of the county reports you have sent me. Such a general view of the agriculture in the several counties of Great Britain is extremely interesting, and cannot fail of being very beneficial to the agricultural concerns of your country, and those of every other wherein they are read. I am so much pleased with the plan and execution myself, as to pray you to have the goodness to direct your bookseller to continue to forward them to me, accompanied with the cost, which shall be paid to his order, or remitted as soon as the amount is made known to me. When the whole are received, I will promote as far as in me lies the reprinting of them here.

"I know of no pursuit in which more real and important service can be rendered to my country, than by improving its agriculture, its breed of useful animals, and other branches of a husbandman's care; nor can I conceive any place more conducive to this end than the one you have introduced for bringing to view the actual state of them in all parts of the kingdom; by which good and bad habits are exhibited in a manner too plain to be misconceived; for the accounts given to the British Board

of Agriculture appear in general to be drawn up in a masterly manner, so as fully to answer the expectations formed in the excellent plan which produced them,—affording, at the same time, a fund of information, useful in political economy, and serviceable in all countries."

A second letter is dated Philadelphia, 10th July, 1795: "I could not omit so favorable an opportunity as the departure of Mr. Strickland affords me, of presenting my best respects to you, and my sincere thanks for the views of agriculture, in the different counties, which you have had the goodness to send me, and for the diploma (received by the hands of Mr. Jay,) admitting me a foreign honorary member of the Board of Agriculture. For this testimony of the attention of that body, and for the honor it has conferred on me, I have a high sense; in communicating to the Board, I shall rely more on your goodness, than on any expression of mine to render it acceptable.

"From the first intimation you were pleased to give me of this institution, I conceived the most favorable ideas of its utility; and the more I have seen and reflected on the plan since, the more convinced I am of its importance, in a national point of view, not only to your own country, but to all others which are not too much attached to old and bad habits to forsake them; and to new countries that are just beginning to form systems for the improvement of their husbandry."

A third letter to the same gentleman is dated Philadelphia, 10th December, 1797: "The result of the experiments entrusted to the care of Dr. Fordyce must be as curious as they may prove interesting to the science of husbandry. Not less so will be an intelligent solution of those inquiries relative to live stock, which are handed to the public."

"A few months more, say the third of March next, and the scenes of my political life will close, and leave me in the shades of retirement; when, if a few years are allowed me to enjoy it (many I cannot expect, being upon the verge of sixty-five,) and health is continued to me, I shall peruse with pleasure and edification, the fruits of the exertions of the Board for the Improvement of Agriculture; and shall have leisure, I trust, to realize some of the useful discoveries which have been made in the science of husbandry.

"Until the above period shall have arrived, and particularly during the present session of Congress, which commenced the 5th inst., I can give but little attention to matters out of the line of my immediate avocations. I did not, however, omit the occasion at the opening of the session, to call the attention of that body to the importance of agriculture. What will be the result, I know not at present, but if it should be favorable, the hints, which you will have in your power to give, cannot fail of being gratefully received by the members who may constitute the Board."

I regret that I have not at this time access to the speech to which he refers in this letter; but it is understood that he



proposed to Congress the establishment of a Board of Agriculture similar to that which existed in Great Britain. Such were the views of this great man, this true patriot, of the importance of the great interest of agriculture to the United States; and of means within the immediate power of the Government, by which they could most essentially subserve its advancement and prosperity. It is certain it has not received that direct attention and patronage to which it is entitled; and though the Government has done something for the protection of the wool grower, and for the cultivation of silk and sugar, by the publication and distribution of valuable treatises on these two important subjects, yet very little has been, nothing compared with what might be, may I not add, ought to be done, both for these and other important interests of agriculture. The establishment of a Board of Agriculture like the English Board, composed of a few of our most enlightened, enterprising, and patriotic farmers, or planters, whether in Congress or out of it, who would give their attention to obtain a thorough agricultural survey of the whole country, would be of the highest benefit. This is a matter of such universal advantage, and in which no party views could mingle, unless they were forced in by violence, I can but indulge the hope that if it were distinctly presented and urged upon Congress by a respectable array of names, in different parts of the country, it would be favorably considered. But if the plan should be thought too extensive to be feasible by the government of the United States, it ought to be urged upon the different States. Let the Empire State, the magnificent republic of New-York, take the lead in this as in other splendid essays of improvement. Massachusetts, never behind in any good work for the general welfare, and Pennsylvania, now almost breathless in her public enterprises, will no doubt follow in her train; and, in due time, a mass of agricultural intelligence would be obtained, and at a comparatively trifling expense, which would, in its beneficial influence upon the States who should undertake such a thorough agricultural survey of their own territories, be more than an equivalent for a hundred times its cost.

With a view of communicating my own ideas more fully, and of drawing the attention of others to the subject, I hope it will not be thought presuming too much if I subjoin such a form of memorial as I should be glad to see presented to the Congress of the United States at a future session, with the names of many of our distinguished and influential fellow-citizens attached to it; and if it should fail of success there, or there should be so little hope of success as to discourage and prevent the application, such an one as might properly be presented to the Legislatures of several of our States, hoping that at least there the obvious advantages of such a survey might, from being nearer, be more fully seen, and the project be received with favor. I am very far from presuming that this is the best way of accomplishing the particular object,—that is, a thorough agri-

cultural survey of the country; and entertain no exclusive partiality for my own views; but this is a mode which has occurred to me, and with all due respect I leave it to the wise, intelligent, and patriotic, among the friends of agriculture, to suggest a better.

(To be continued.)

**Miscellaneous Collection of Facts and Opinions.** By S. F. [For the New-York Farmer and American Gardener's Magazine.]

**BUTTER.**—There are three requisites in producing an easy separation of cream—the milk should have a large surface, be kept perfectly still, and at the temperature of 54 to 56 degrees. If desirous of obtaining all the cream, the milk should not be skimmed as soon as it curdles. The best butter, however, is made from the cream that rises first. If the room containing the milk is too warm in the hot season, the floor should be often washed, and salt occasionally sprinkled over it. The sooner the cream is churned the better will be the butter, and the less the latter is washed with water, the more delicate and pleasant will be its flavor. In the fall and winter, Mr. W. Allen, of North Andover, obtains butter by churning ten minutes. He raises his cream to 72 or 73 degrees.

**CUT STAW FOR HORSES.**—At this season of the year, horses that are used much, or that perspire freely, are apt to take cold, and become hide-bound. They require once or twice a couple of table spoonfuls of sulphur mixed with their food, which should be of cut straw, and corn and cob, and oats, ground together. If well curried, their skins will soon be loose, and they will begin to thrive immediately.

**HAY ON BARN FLOORS.**—When hay, particularly clover, is thrown on the floor, much of it, and the most valuable part, too, breaks and crumbles into so small pieces, that the fork will not take them up. In most barns, this is entirely wasted or shoved out into the yard, where but comparatively little of it is picked up by the stock. "I," says an aged farmer, "keep my barn floor as clean as my wife's parlor, and every day shovel into an old sleigh or box, which I keep standing by, all the leaves, seeds, and fine parts of the hay. This makes superior feed for my cows: if moistened with water, and a small quantity of bran or meal added, and given about the time of calving, nothing appears more nourishing to them."

**MORUS MULTICAULIS.**—Seeds of this plant have been sown in this country, in the vicinity of Northumberland, Mass., I think. Perhaps some reader of the New-York Farmer will state the result in reference to this plant being a mere variety. It is the opinion of the French Royal Society of Agriculture that it is not a distinct species—that its seed will not produce its like—that it cannot be preserved except by propagating it by layers, cuttings and grafts—and that it is exclusively by these means that the Chinese have reared this plant from time immemorial.

**STONE WALL FOR SHEEP.**—A farm well fenced with stone is much more valuable

than one with rails, even if suitable timber grows on the farm. There is, however, one drawback: One unruly sheep will take a flock over a whole farm, and soon learn them to skip over the best of wall fences, with so much ease that it is impossible to keep them, except where they are disposed to remain. Some farmers have been obliged to abandon sheep husbandry on this account. If the stone wall is high, and well faced, and the pasture good, sheep may often be kept without much inconvenience or damage. Ordinary stone fences, with a top rail, will not prevent unruly sheep from scaling them. They will approach the fence in an oblique direction, and skip over it with the ease of a deer. If the top rail is made to project over towards the field in which the sheep are, it answers a much better purpose. The best top rail is red cedar, with all the limbs left on to the length of two feet. If two fields are fenced in this manner a farmer need not be troubled with unruly sheep. Alternating them in these lots will ever afford good pasture, and enrich the ground.

**Swine.** By H. C. [For the New-York Farmer and American Gardener's Magazine.]

**MR. EDITOR:** To inquisitive minds facts are always instructive and valuable. "What man has done, man can do." This is a lesson of the highest practical utility. The experiments of others excite competition, and their success encourages and animates our exertions. For these reasons I propose to give you, from my agricultural minutes, a few accounts of the success of some individuals in fattening swine. I shall not refer to any examples of hogs which have been kept to an advanced age, and on account of their extraordinary size have been carried through the country for exhibition. Some of these have been of an enormous size. But I propose to give you the weight of some which have been fattened for consumption, and their weight, when dressed for the market. I shall put down, where they are ascertained, the place and year where and when they have been raised, their owners' names, their age, and weight.

- 1815—Eli Cooley, Deerfield, Mass., killed eight. They were all of one litter, and were 19 months old. Their weight as subjoined—577, 492, 530, 423, 492, 445, 405, 455—total,..... 3809 lbs.
- 1823—P. Denton, Greenfield, N. Y. four pigs, 9 months 17 days, wt. 348, 318, 310, 303—total,..... 1284 "
- 1824—Oliver Chickering, Shrewsbury, Mass. one, 19 months,..... 650 "
- G. Wheelock, do. one, 30 months,..... 584 "
- 1825—Maskell Ware, Rhodestown, N. J. one,..... 740 "
- Johnston, Bridgton, N. J. two, 19 months,..... 1100 "
- 1828—Enoch James, Deerfield, N. H. one, 18 months,..... 716 "
- Smith, Hunterdon, N. J. five hogs, the oldest 12 months, four less than 11 months; largest, 329 lbs.; smallest, 268; weight of the whole, 1501 "
- 1829—Stacy Hall, Portsmouth, N. H. one, 23 months,..... 682 "
- This hog gained 500 lbs. in less than a year. He was of the Byfield breed.
- 1830—Alanson Sessions, Cumberland, R. I. one,..... 675 "
- one,..... 645 "
- Richd. Leisure, Swansey, R. I. one, 20 months,..... 712 "
- 1831—John King, Medford, Mass. one, 30 months,..... 725 "



Samuel Dore, Salem county, N. J.	954 lbs.
one, weight alive, 1074 lbs.	
D. Rowell, Madison,	
six hogs, wt. 427, 436, 449, 483, 492,	
538—total.....	3325 "
Capt. Mackay, Weston,	
two hogs, 20 months—wt.....	1918 "
Farmer in Dunning street, N. Y.	
twenty-nine hogs, average wt. each	400 "
1832—Earl Stimson, Galway, N. Y.	
twenty hogs, average wt. each.....	414 "
1832—Asa Littlefield, Framingham, Mass.	
one, 18 to 19 months.....	678 "
1834—In Nantucket, Mass.	
one.....	470 "
Increase in 267 days, 295 lbs.	
Sable Rogers, Springfield, Mass.	
one, 2 years old.....	708 "
E. Thayer, Charlemon, Mass.	
one, 17 months.....	542 "
—Pittston, Bennington county, N. Y.	
two, 15 months.....	893 "
—Lansingburgh, N. Y.	
one, 14 months.....	4123 "
R. Benedict, Lagrange, Dutchess co., N. Y.	
sixteen hogs, average each.....	333 "
S. B. Clapp, Lagrange,	
one, 10 months.....	340 "
Called the Mocho breed; probably	
some local designation.	
Andrew Lake, Sharon, Dutchess co., N. Y.	
twenty-one hogs, average wt.....	351 "
—Doty, Hempstead, L. I.	
Two hogs, 14 months old, one.....	611 "
".....	578 "
The above were fed upon apples and	
milk through the last of the sum-	
mer; in the fall, upon Indian meal,	
how prepared is not known.	
—De Wolfe, Deerfield, Mass.	
two hogs, one.....	432 "
".....	482 "
1835—Eben. Burrill, Jr., Lynn, Mass.	
Three hogs, age not ascertained, but	
believed not to exceed 19 months:	
one.....	492 "
".....	610 "
".....	743 "
Total.....	1845 "
Solomon Williams, Deerfield, Mass.	
one.....	482 "
".....	523 "
Total.....	1010 "

Such results as the above are certainly remarkable and encouraging. Much, undoubtedly, of such success is owing to the particular breed of hogs; not a little to the management and mode of feeding. In no branch of husbandry has there been greater and more acknowledged improvement than in the race of swine, within indeed the memory of most of us. This improvement, in the judgment of one of the most distinguished butchers and packers of pork in Boston, has added hundreds of thousands of dollars to Massachusetts. The origin of the Byfield breed I perfectly well remember. A respectable friend of mine, living in Byfield, one of the parishes in Newbury, Mass., being at market one day in Newburyport, found a small Chinese boar pig, recently arrived in a vessel from India or Canton; which he obtained and carried home in his pannier or market cart; for it was then common to carry meat to market in two large square baskets, hung on either side of the saddle, where the farmer rode. From this animal he propagated the stock with success, which has spread through the whole country, and even to Europe, under the same name. This could not have been far from the year 1790, and this good man and excellent farmer is still living.

Since that time various crosses have been made, and other valuable breeds introduced into the country. Without question, the finest boar in appearance which I have ever seen is owned by David Hosack, Esq., M. D., at his magnificent establishment at Hyde Park on the Hudson; whose superlatively fine stock of Improved Durham Cows, not surpassed, and, when the number is considered, not equalled by any, which have come under my observation, and whose admirable flock of pure Dishley bucks and ewes, reflect the highest honor upon his public spirit, and his truly patriotic liberality. Mr. Caleb N. Bement, of Albany, the keeper of an excellent hotel in Market street, a spirited and intelligent farmer, as well as a courteous and attentive landlord, has, through the kindness of Dr. Hosack, a boar from his stock, which promises extremely well. He has likewise a cow from the improved stock of I. Whitaker, of England, of most extraordinary excellence in appearance and product; and much other stock, deserving the attention and examination of every admirer of fine animals.

H. C.

Meadowbanks, Jan. 7, 1835.

*Tanner's Bark and Leaf Mould for Strawberries.* By D. F. A. [For the New-York Farmer and American Gardener's Magazine.]

MR. FLEET: In the last number of the Farmer I notice a communication by H. H., on the use of tanner's bark in the cultivation of the strawberry. I tried it some years since, and though a very good thing, it has some disadvantages: First, it is generally found to impart a disagreeable flavor to the fruit; secondly, it cannot be procured at all times, and then but in few places, unless at too much expense. I have this year tried a substitute, which I recommend in preference, as every wood or copice will furnish the material.

Rake away all the loose leaves from a corner or hollow, where they annually settle, and gather the coarse mould beneath; or prefer the decayed wood from an old stump or fallen tree, that has decomposed, until it has become nearly in appearance like tanner's bark. It is without that astringent quality, and will answer in all respects, prevent weeds, preserve moisture, warmth in winter, food in spring, and by selecting the wood from different trees, a variety of tints may be formed that will make a pleasing appearance when this chilly season deprives us of so much of our garden foliage. I subjoin my method of cultivating. In the fall, cover the beds slightly with straw, and burn all down; then dig in between the hills with a trowel or deep hoe, rake smooth, and replace with a fresh dressing two inches thick, for winter protection, &c. The hills ought to be no more than twelve inches apart, and two or three stems in a hill. While the fruit is setting, water morning and evening, with a table spoonful of salt to each pail of rain or river water; if well wa-

tered, it should be exposed to the sun some days. A bed planted from any good variety in full bearing will, thus treated, always insure a crop. Early in September is the best time to plant, choosing the first made runner plants, or some offsets for immediate bearing. The runners will come in the second and third season.

D. F. A.

December, 1834.

**SUPPLYING THE CITY WITH WATER.**—In the board of Aldermen last evening, the Report of the Commissioners for supplying the city with water, was read and accepted. "The plan" says the Times "is to obtain water from the Croton river—the grand reservoir for the city to be the summit of Murray Hill, about three miles out, and which is higher than the highest house in the city. The cost of bringing water to Murray Hill, is calculated to be \$4,250,000, and from thence through the city \$1,262,000 more, making in all \$5,512,000. The pipes already down will answer for a part, and their cost may be taken from the above amount. It was stated that in 110 fires last year the loss of property which was insured amounted to \$910,931, and that there was about half as much more not covered by insurance. The loss by fire in the city of New York averages \$1,000,000 a year, one fifth of the cost of the projected water works, most of which would be saved by a ready and abundant supply of water."

We trust the Board of Assistants will, at their next meeting, concur with the Aldermen, and that, at the Spring Election, there will be a clear vote in favor of this useful, this magnificent, and only certain, project.

#### 23d CONGRESS—Second Session. LIST OF ACTS

*Passed at the second session of the 23d Congress.*

An act to render permanent the present mode of supplying the Army of the United States, and fixing the salary of certain clerks therein named.

An act for the relief of Samuel Bragdon, David Chase, and the owners of the schooner Halcyon.

An act for the relief of Charles Gordon, and the crew of the schooner Two Sons.

An act for the relief of Wm. P. Zantlinger, Purser in the Navy of the United States.

An act for the relief of Silas D. Fisher.

An act for the relief of Mervin P. Mix.

An act for the relief of Humphrey B. Gwathmey.

An act for the relief of Robert Haile.

An act for the relief of Evan Edwards.

An act for the relief of Samuel S. Lord, and the owners and crew of the fishing schooner Mary and Sally, of York, in the State of Maine.

An act for the relief of Frances Lassell and others, Michigan volunteers.

An act for the relief of Samuel Butler.

An act for the relief of Job Barton.

An act for the relief of David Kincaid.

An act for the relief of Stevens Smith, and the heirs of Patrick McRowan and crew of the fishing schooner Rising States, of Bath Bay, in the State of Maine.

An act for the relief of Mathew C. Perry, a Master Commandant in the Navy of the United States.

An act for the relief of E. R. Shubrick, of the United States Navy.

An act for the relief of Riddle, Beetle, and Headington.

An act for the relief of John J. Avery.

An act for the relief of Stephen Gatlin.

An act for the relief of Theodore Owens.

An act for the relief of the representatives of Thomas Clemmons.

An act for the relief of Shubael Conant.



An act for the relief of the legal representatives of Aaron Smith.  
 An act for the relief of Thomas Ball.  
 An act for the final adjustment of the claims to land in the southeastern district of Louisiana.  
 An act for the relief of Wm. Haskell and others.  
 An act for the relief of John Collins, a soldier of the Revolutionary war.  
 An act for the final adjustment of claims to lands in the State of Louisiana.  
 An act granting a pension to Amasa A. Tift.  
 An act to regulate the pay of the Navy of the United States.  
 An act granting a pension to Isaac Janvier.  
 An act for the relief of Peter Triplett.  
 An act authorizing the Secretary of the Treasury to refund to Richard Butman the tonnage duty imposed on the schooner Brandywine.  
 An act granting a pension to Wm. Wilges.  
 An act for the relief of Simeon Meachum, of the State of New York.  
 An act for the relief of the children of Dominick Lynch.  
 An act granting a pension to Joseph Mead.  
 An act granting a pension to Benjamin Leslie.  
 An act for the relief of James Young.  
 An act for the relief of Henry Awkward.  
 An act granting pensions to William Baden and James Harrington.  
 An act for the relief of John Ashton.  
 An act granting a pension to John Gerodelle.  
 An act granting a pension to Samuel Shelmerdine.  
 An act for the relief of Joseph Gilbert.  
 An act for the relief of the legal representatives of John Muldowney.  
 An act granting a pension to Thomas Morton.  
 An act for the relief of Timothy Jordan.  
 An act for the relief of the heirs and legal representatives of Bailey E. Clarke.  
 An act to authorize the Secretary of State to issue letters patent to James Jones.  
 An act for the relief of Joseph Swartwood.  
 An act for the relief of Abraham E. Boutwell and David Pearson.  
 An act for the relief of Daniel Page.  
 An act to allow further time to complete the issuing and locating of military land warrants during the late war.  
 An act for the relief of Thomas Buford.  
 An act to make appropriations for the payment of the Revolutionary and other pensioners of the United States, for the year one thousand eight hundred and thirty-five.  
 An act to extend the time of issuing military and land warrants to the officers and soldiers of the Revolutionary army.  
 An act making appropriations for the support of the army for the year one thousand eight hundred and thirty-five.  
 An act making appropriations for the current expenses of the Indian Department, for the year one thousand eight hundred and thirty-five.  
 An act for the relief of John Moore.  
 An act making appropriations for the naval service for the year one thousand eight hundred and thirty-five.  
 An act making appropriations for Indian annuities and other similar objects for the year one thousand eight hundred and thirty-five.  
 An act to amend an act, entitled "an act authorizing the construction of a bridge across the Potomac, and repealing all acts in relation thereto."  
 An act for the relief of George C. Seaton.  
 An act granting a pension to John Bryant.  
 An act granting a pension to Larnard Stallow.  
 An act for the relief of Richard T. Archer.  
 An act to change the place of holding the District Court of the United States of the District of Mississippi.  
 An act for the relief of John Tice, assignee of William Pennington.  
 An act granting a pension to Noah Miller, an invalid major of the militia.  
 An act making appropriations for certain roads, and for examinations and surveys, for the year one thousand eight hundred and thirty-five.  
 An act placing Captain Cole, a Seneca Indian Chief, on the pension roll.  
 An act making additional appropriations for the

Delaware breakwater, and for certain harbors, and removing obstructions in and at the mouths of certain rivers, for the year one thousand eight hundred and thirty-five.  
 An act for the relief of William O'Neale and Robert Morrison.  
 An act for the relief of Benjamin Holland.  
 An act authorizing the construction of a Dry Dock for the Naval service.  
 An act making appropriations for building light boats, beacons, and monuments, and placing buoys for the year eighteen hundred and thirty-five, and for other purposes.  
 An act to authorize the City Council of St. Augustine to widen a street in St. Augustine.  
 An act to authorize letters patent to be issued to Francis B. Ogden.  
 An act making appropriations for the Civil and Diplomatic expenses of Government for the year one thousand eight hundred and thirty-five, and for other purposes.  
 An act amendatory of the act for the continuation of the Cumberland Road.  
 An act to authorize the removal of the Land Office at Wapahukonea to Lima, in the State of Ohio.  
 An act to prescribe the punishment of Consuls, Commercial Agents, and others, in certain cases.  
 An act to authorize the sale of certain lands belonging to the University of Michigan.  
 An act for improving the harbor at the mouth of the river Raisin, in the Territory of Michigan.  
 An act granting to the borough of Michilimackinac certain grounds for public purposes.  
 An act for the completion of certain improvements in Florida.  
 An act for the relief of Col. J. Eugene Leitensdorfer.  
 An act for the relief of the legal representatives of Moses Shepherd, deceased.  
 An act for the relief of John Dougherty, an Indian Agent.  
 An act for the relief of Lemuel Tanner, assignee of Pierre Dufresne.  
 An act making an appropriation for the completion of the Military Barracks at New Orleans.  
 An act to provide for the further compensation of the Marshal of the District of Delaware.  
 An act to authorize the construction of a railroad upon the public lands from Tallahassee to St. Marks, in Florida.  
 An act supplementary to an act entitled an act to authorize the inhabitants of the State of Louisiana to enter the back lands.  
 An act to continue the office of Commissioner of Pensions.  
 An act for the continuation and repair of the Cumberland Road, in the States of Ohio, Indiana, and Illinois.  
 An act to complete certain roads of the Territory of Arkansas.  
 An act in amendment of the acts for the punishment of offences against the United States.  
 An act to establish branches of the Mint of the United States.  
 An act to authorize the Secretary of the Treasury to compromise the claims allowed by the commissioners under the Treaty with the King of the Two Sicilies, concluded Oct. 14, 1832.  
 An act further to suspend the operation of certain provisions of "an act to alter and amend the several acts imposing duties on imports," approved July 14, 1832.  
 An act further to extend the time allowed for the execution of the duties of the commission for carrying into effect the convention with France.  
 An act granting a pension to Justus Cobb.  
 An act granting a pension to Isaac Eckright.  
 An act granting a pension to Solomon Case.  
 An act to change the time of holding the District Court of the United States, for the Western District of Virginia, held at Clarksburg.  
 An act supplementary to an act entitled "an act to authorize the extension, construction and use of a lateral branch of the Baltimore and Ohio Railroad, into and within the District of Columbia."  
 An act to provide for paying certain pensioners at Jackson, in the State of Tennessee.  
 An act to extend the patent of Robert Eastman, for a further period of seven years.  
 Joint Resolution, giving the right of way thro'

the property of the United States at Harper's Ferry, to the Winchester and Potomac Railroad Company.

Resolution for the (sale) of a Lion and two Horses, received as a present by the Consul of the United States at Tangier, from the Emperor of Morocco.

Resolution presenting a gold medal to Geo. Croghan, and a sword to each of the officers under his command, for their gallantry and good conduct in the defence of Fort Stephenson in 1813.

The President has recognized NICHOLAS D. C. MOLLER, as Consul of the Republic of Venezuela, for the city of New York.

MASSACHUSETTS—GOVERNOR DAVIS transmitted a message to both Houses of the Legislature, resigning the office of Governor and accepting that of Senator in Congress. Lieutenant Governor Armstrong, by the Constitution, is empowered to perform all the duties and exercise all the prerogatives of Governor, for the remainder of the year, and until a Governor shall have been chosen and qualified in his stead.

The Arabian horses, lately sent as a present from the Emperor of Morocco to the President of the United States, were sold at auction, at Washington, on Monday, in pursuance of a resolution of Congress. One was bought by Mr. Flourbloy of Virginia, for 1205 dollars; and the other, by Messrs. Horton and Tammany, of Pennsylvania, for 860 dollars.

The Boston Transcript of Monday evening says "The Frigate Constitution got under way this morning at half past 11, and was towed out of the harbor by the steamboat Bangor."

†Extract from the Garde National.

MARSEILLES, Dec. 19, 1834.

General statement of commerce, of France, 1833.

The second result offered by the administration of the custom-house, in its *Tableau General*, is that of the whole of our relations with each of the great commercial Powers of the world.

The United States continue to be placed very far ahead of the nations with which we hold the most extensive trade. In 1833 our importations amounted to 99,079,212 francs, and our exportations to 117,396,336 francs. After the United States, the following is the order of the Powers with which our relations are the most extensive:

	Imports.	Exports.
England, comprising Malta, Gibraltar, and the Ionian Islands, ..	30,741,630	116,195,838
Belgium.....	65,844,933	52,348,158
Spain, including the Canary Islands 41,844,585		62,491,580
Sardinia, island and continent....	68,737,000	49,687,122
Austria, including the Lombard Venetian Kingdom.....	48,243,379	6,657,401
Switzerland.....	31,168,063	58,191,490
Germany.....	24,587,138	41,945,770
Russia.....	33,103,800	10,555,791
Prussia.....	30,491,932	7,401,080
India.....	37,406,138	5,905,112
Turkey, including the islands of the Archipelago.....	17,364,911	14,412,770

§ The following statements are taken from the official tables for the financial years, ending the 30th September of each year.

Imports from France.

Years.	Total.	Silks.	Wine.	Brandy.
1824	8,121,000	2,340,000	200,000	590,000
1825	11,836,000	5,634,000	412,000	864,000
1826	9,590,000	4,121,000	632,000	450,000
1827	9,449,000	4,281,000	565,000	694,000
1828	10,398,000	3,082,000	438,000	1,064,000
1829	9,617,000	4,363,000	444,000	614,000
1830	8,241,000	3,513,000	465,000	310,000
1831	14,733,000	6,888,000	651,000	316,000
1832	12,755,000	5,944,000	902,000	615,000
1833	13,963,000	6,256,000	920,000	850,000

Exports to France.

Years.	Total.	Cotton.	Value.	Am. ton.	Fr. ton.
1824	10,562,609	49,628,000	6,436,000	104,000	8,800
1825	11,321,000	30,012,000	5,916,000	100,500	14,500
1826	12,106,000	62,243,000	8,178,000	131,500	16,000
1827	13,583,000	70,423,000	7,350,000	147,700	16,600
1828	12,009,000	53,480,000	5,903,000	130,900	14,400
1829	12,893,000	67,464,000	6,855,000	137,700	12,100
1830	11,800,000	75,103,000	7,646,000	142,700	11,400
1831	9,853,000	44,197,000	4,964,000	98,800	7,800
1832	13,945,000	77,477,000	7,723,000	129,500	21,500
1833	14,425,000	76,833,000	8,645,000	110,800	25,400



**Novel, Practicable, and Cheap Mode of obtaining Good Crops of Wheat.** By O. P. Q. To the Editor of the New-York Farmer.

MR. EDITOR,—In the Complete Farmer and Rural Economist, recently published in Boston, a work of great merit, the following directions are given for the cultivation of wheat on the authority of John Townsend, of Andover, Conn. We make only a short extract: After a crop of corn, "plough three inches deep, and spread on evenly four or five inches of well rotted manure, and sow three pecks of good clean wheat to the acre, and unless something disastrous happen, the summer following your garner may be filled with the finest wheat."

Now, we ask, very respectfully, of the "editor of the Complete Farmer," to whose authority we have been long disposed to defer, to inform us who is the happy farmer, saving always Mr. Jno. Townsend, of Connecticut, who has manure enough, and time enough to put it on, to spread evenly four or five inches of well rotted manure over his wheat fields? and to let us know whether "any thing disastrous" has happened to Mr Townsend since he adopted this very pleasant and feasible operation? This is book-farming with a witness. O. P. Q.

**STONES ON TILLABLE GROUND.**—It is the practice of most farmers to pick the stones off their fields after they are laid down to grass the spring prior to mowing. Is it not better to carry them off when putting in the seed, and prior to the last harrowing. By thus doing, grain and grass will grow in the places occupied by the stones; and these are often very considerable portions of the surface. At this time there is no difficulty in getting up the stones. Last fall, I sowed five acres of stony ground with wheat and rye, and picked off all the stones after the seed was sown, and before the harrowing was finished. The appearance of the field was very much improved.

**PLASTER OF PARIS.**—At the distance of fifteen miles from the city, on the banks of the Hudson, gypsum answers a very good purpose on clover; and yet salt water ascends near a hundred and fifty miles above this. On Long Island, it is supposed not to succeed on account of the proximity of salt water.

**CLOVER WITH OATS.**—Many of the farmers in West Chester and Putnam counties sow clover seed with their oats—think it takes better than with rye or wheat. The ordinary rotation in most parts of this section of the Union is corn, oats, rye, or wheat with clover. In order to secure the enriching properties of clover, I should suppose, even in this rotation, it would be profitable to sow clover with a view of turning it under for rye or wheat in the fall. The expense of seed and sowing is but a trifle. The pasture, from the time the oats are cut to that for fall ploughing, will pay for all expenses.

**STOCKINGS.**—Those made of common wool are said to be more durable than from Merino wool.

**TOWNSEND & DUFFEE**, of Palmyra, Manufacturers of Railroad Rope, having removed their establishment to Hudson, under the name of Duffee, May & Co. offer to supply Rope of any required length (with-out splice) for inclined planes of Railroads at the shortest notice, and deliver them in any of the principal cities in the United States. As to the quality of Rope, the public are referred to J. B. Jervis, Eng. M. & H. R. R. Co. Albany; or James Archibald, Engineer Hudson and Delaware Canal and Railroad Company, Carbondale, Luzerne county, Pennsylvania.

Hudson, Columbia county, New York, }  
January 29, 1833.

**RAILROAD CASTINGS.**  
MANY & WARD, Proprietors of the Albany Eagle Air Furnace and Machine Shop, will make to order car wheels, chairs and knees, and every other description of castings required for railroads. R-17 Feb 14

**PATENT HAMMERED SHIP, BOAT, AND RAILROAD SPIKES.**

Railroad Spikes of every description required, made at the Albany Spike Factory. Spikes made at the above Factory are recommended to the public as superior to any thing of the kind now in use. Ship and Boat Spikes made full size under the head, so as not to admit water.

Orders may be addressed to Messrs. ERASTUS CORNING & CO., Albany, or to THOMAS TURNER, at the Factory, Troy, N. Y. sept. 13-1 y

**PATENT RAILROAD, SHIP AND BOAT SPIKES.**

The Troy Iron and Nail Factory keeps constantly for sale a very extensive assortment of Wrought Spikes and Nails, from 3 to 10 inches, manufactured by the subscriber's Patent Machinery, which after five years successful operation and now almost universal use in the United States (as well as England, where the subscriber obtained a Patent,) are found superior to any ever offered in market.

Railroad Companies may be supplied with Spikes having countersink heads suitable to the holes in iron rails, to any amount and on short notice. Almost all the Railroads now in progress in the United States are fastened with Spikes made at the above named factory—for which purpose they are found invaluable, as their adhesion is more than double any common spikes made by the hammer.

All orders directed to the Agent, Troy, N. Y., will be punctually attended to.

Troy, N. Y. July, 1831. HENRY BURDEN, Agent.

Spikes are kept for sale, at factory prices, by I. & J. Townsend, Albany, and the principal Iron Merchants in Albany and Troy; J. I. Brower, 222 Water street, New-York; A. M. Jones, Philadelphia; T. Janviers, Baltimore; Degrand & Smith, Boston.

Railroad Companies would do well to forward their orders as early as practicable, as the subscriber is desirous of extending the manufacturing so as to keep pace with the daily increasing demand for his Spikes.

**MILL DAM FOUNDRY FOR SALE,**

The Proprietors of the Mill Dam Foundry offer for sale or lease their well known establishment, situated one mile from Boston. The improvements consist of

No. 1. Boiler House, 50 feet by 30 feet, containing all the necessary machinery for making boilers for Locomotives and other steam Engines.

No. 2. Blacksmith's Shop, 50 feet by 20, fitted with cranes for heavy work.

No. 3. Locomotive House, 54 feet by 25, used for putting together Locomotive Engines. Several of the best Engines in use in the United States have been put in this establishment.

No. 4. A three story brick building, covered with slate, 130 feet by 45, containing two water-wheels, equal to 40 horse power; Machine Shop, fitted with lathes, &c.; Pattern Shop; Rolling Mill and Furnaces, capable of rolling 4 tons of iron per diem, exclusive of other work; three Trip Hammers, one of which is very large; Engine for blowing Cupola Furnaces, moved by water-wheel; one very superior 24 horse Steam Engine, which could be dispensed with; and a variety of other machinery.

No. 5. An Iron Foundry, 80 feet by 45, with a superior air Furnace and two Cupolas, Core oven, Cranes, &c. fitted for the largest work. Attached to the Foundry is a large ware-house, containing Patterns for the Castings of Hydraulic Presses, Locomotive and other Steam Engines, Lead Mill Rolls, Gearing, Shafts, Sproves, Grates, &c. &c. These were made of the most durable materials, under the direction of a very scientific and practical Engineer, and are supposed to be of great value.

No. 6. A building, 65 feet by 36, containing a large stock of chimneys, and furnaces, for making Cast Steel. This building is at present used as a boarding-house, and can accommodate a large number of men.

No. 7. A range of buildings, 300 feet long by 36, containing counting room, several store rooms, a Brass Foundry, room for cleaning castings, a large loft for storing patterns, stable for two horses, &c. &c.

The above establishment being on tide water, presents greater advantages for some kinds of business than any other in the United States. Coal and iron can be carried from vessels in the harbors of Boston, to the wharf in front of the Factory, at 25 to 30 cents per ton. Some of the largest jobs of Iron work have been completed at this establishment; among others, the great chain and lift pumps for freeing the Dry Dock at the Navy Yard Charleston.

The situation for Railroad work is excellent, being in the angle formed by the crossing of the Providence and Worcester Railroads. The Locomotive "Yankee" now running on the latter road, and the "Jonathan," purchased by the State of Pennsylvania, were built at these works. With the Patterns and Machinery now in the premises, 12 Locomotives and as many tenders, besides a great quantity of cars and waggon, could be made per annum.

For terms, apply to THOS. J. ECKLEY, Treasr. &c., Boston, or to ROBERT RALSTON, Jr., Philadelphia. Boston, Dec. 29, 1834.

**STEPHENSON:**

Builder of a superior style of Passenger Cars for Railroad.

No. 264 Elizabeth street, near Bleecker street, New-York.

RAILROAD COMPANIES would do well to examine these Cars; a specimen of which may be seen on that part of the New-York and Harlem Railroad now in operation. J35 1f

**RAILROAD CAR WHEELS AND BOXES, AND OTHER RAILROAD CASTINGS.**

Also, AXLES furnished and fitted to wheels complete at the Jefferson Cotton and Wool Machine Factory and Foundry, Paterson, N. J. All orders addressed to the subscribers at Paterson, or 60 Wall street, New-York, will be promptly attended to.

Also, CAR SPRINGS.  
Also, Flange Tires turned complete. J8  
ROGERS, KETCHUM & GROSVENOR.

**RAILWAY IRON.**

95 tons of 1 inch by 1 inch,	Flat Bars in lengths of
200 do. 1 1/2 do. do.	14 to 15 feet, counter sunk
40 do. 1 1/2 do. do.	holes, endcut at an angle
800 do. 2 do. do.	of 45 degrees, with ap-
800 do. 2 1/2 do. do.	licing plates and nails to
soon expected.	suit.

3250 do. of Edge Rails of 36 lbs. per yard, with the requisite chairs, keys and pins.

Wrought Iron Rims of 30, 33, and 36 inches diameter for Wheels of Railway Cars, and of 60 inches diameter for Locomotive wheels.

Axles of 24, 26, 28, 30, 32, 34, and 36 inches diameter for Railway Cars and Locomotives of patent iron.

The above will be sold free of duty, to State Governments and Incorporated Governments, and the Drawback taken in part payment.

A. & G. RALSTON.  
9 South Front street, Philadelphia.  
Models and samples of all the different kinds of Rails, Chairs, Pins, Wedges, Spikes, and Splicing Plates, in use both in this country and Great Britain, will be exhibited to those disposed to examine them. d7Imeowr

**SURVEYORS' INSTRUMENTS.**

Compasses of various sizes and of superior quality warranted.

Leveling Instruments, large and small sizes, with high magnifying powers with glasses made by Troughton, together with a large assortment of Engineering Instruments, manufactured and sold by

E. & G. W. BLUNT, 154 Water street, corner of Maiden lane. J31 6t

**SURVEYING AND ENGINEERING INSTRUMENTS.**

The subscriber manufactures all kinds of Instruments in his profession, warranted equal, if not superior, in principles of construction and workmanship to any imported or manufactured in the United States; several of which are entirely new, among which are an Improved Compass, with a Telescope attached, by which angles can be taken with or without the use of the needle, with perfect accuracy—also a Railroad Goniometer, with two Telescopes—and a Leveling Instrument, with a Goniometer attached, particularly adapted to Railroad purposes.

WM. J. YOUNG.  
Mathematical Instrument Maker,  
No. 9 Duck at., Philadelphia.

The following recommendations are respectfully submitted to Engineers, Surveyors, and others interested. Baltimore, 1832.

In reply to thy inquiries respecting the instruments manufactured by thee, now in use on the Baltimore and Ohio Railroad, I cheerfully furnish thee the following information. The whole number of Levels now in possession of the department of construction of thy make is seven. The whole number of the "Improved Compass" is eight. These are all exclusive of the number in the service of the Engineer and Graduation Department.

Both Levels and Compasses are in good repair. They have in fact needed but little repairs, except from accidents to which all instruments of the kind are liable.

I have found that thy patterns for the levels and compasses have been preferred by my assistants generally, to any others in use, and the Improved Compass is superior to any other description of Goniometer that we have yet tried in laying the rails on this Road.

This instrument, more recently improved with a reversing telescope, in place of the vane sights, leaves the engineer scarcely any thing to desire in the formation or convenience of the Compass. It is indeed the most completely adapted to lateral angles of any simple and cheap instrument that I have yet seen, and I cannot but believe it will be preferred to all others now in use for laying of rails—and in fact, when known, I think it will be as highly appreciated for common surveying.

Respectfully thy friend,  
JAMES F. STABLE, Supt of Construction  
of Baltimore and Ohio Railroad.

Philadelphia, February, 1833.

Having for the last two years made constant use of Mr. Young's "Patent Improved Compass," I can safely say I believe it to be much superior to any other instrument of the kind, now in use, and as such most cheerfully recommend it to Engineers and Surveyors.

E. H. GILL, Civil Engineer.

Germantown, February, 1833.

For a year past I have used Instruments made by Mr. W. J. Young, of Philadelphia, in which he has combined the properties of a Theodolite with the common Level.

I consider these Instruments admirably calculated for laying out Railroads, and can recommend them to the notice of Engineers as preferable to any others for that purpose.

HENRY B. CAMPBELL, Eng. Philad.  
German. and Norristown Railroad  
ml ly